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Report of the Board of Education, Bombay 1852-53

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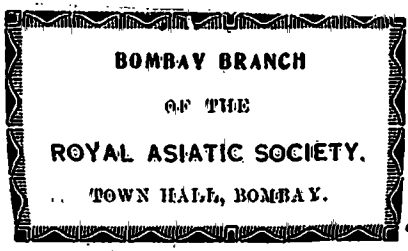

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REPORT

OF THE

BOARD OF EDUCATION,

BOMBAY,

FROM

MAY 1, 1852, TO APRIL 30, 1853.

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Bombay:

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1853.

Board of Education.

April 30th, 1853.

THE HONORABLE JOHN WARDEN, Esq., *President*.

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M. STOVELL, Esq., *Secretary*.

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To the Right Honorable

LORD VISCOUNT FALKLAND,

Governor and President in Council,

Bombay.

My Lord,

We have the honor to lay before you a Report of the educational institutions under our charge for the year ending April 30th, 1853.

2. We have to commence our report by recording our deep sense of the great loss we have sustained by the retirement from India, in November last, of our late President, Sir Erskine Perry. For the lengthened period of nearly nine years, during which he held this important post, he devoted a powerful intellect and a cultivated mind to the great cause of Native enlightenment. Throughout his career he proceeded on the broad principle that the higher branches of education could only be taught effectively through the medium of the English language; but he fully admitted, on the other hand, that the great mass of the population must of necessity be educated solely through the channel of their vernaculars. Thus he was not only a powerful advocate for education in English,—through the medium of which alone, in the present state of vernacular literature, can the treasures of European literature and science be made communicable to the Native mind,—but he at the same time afforded marked encouragement to education

Retirement of Sir Erskine Perry, late President of the Board of Education.

conducted through the medium of the student's mother-tongue.

Same subject.

3. Among the many lasting memorials of Sir Erskine Perry's exertions at our Board, we may, perhaps, be allowed to allude to one of the most important as well as of the most recent, viz. the amalgamation of the Poona Sanskrit College with the Poona English School, thus happily uniting under one roof the study of English and Sanskrit with the vernacular of the Deccan, and carrying a wholesome reform into a College which gives promise of becoming one of the most important institutions in India.

Same subject.

4. We need not, however, dwell on the details of a career of beneficial exertion which are so well known to, and appreciated by, your Lordship in Council. We may remark, however, that few have had such opportunities as ourselves for appreciating his extensive acquirements, his enlarged views, his untiring zeal, and his taste for those pursuits which so eminently qualified him for presiding at our Board. We beg to place in the appendix the acknowledgment by your Lordship in Council of Sir Erskine Perry's valuable services in the cause of education, as well as the expression of our regret at his departure.

Retirement of Mahomed Ibrahim Mukba, Esq.

5. We have also to record the retirement from our Board of an able and valuable Member, in Mahomed Ibrahim Mukba, Esq., a gentleman who has been labouring in the cause of education for the long period of thirty-one years. As far back as 1822 he was elected a member of the Managing Committee of the Native Education Society, and he has been annually elected ever since. In 1834 he became a member of the

Elphinstone College Council, and in 1840 he was elected a member of the Board of Education. In the course of this long career he prepared and published several works, in a great measure at his own expense, for the benefit of the Musalmán population, and on one occasion he received the marked approbation of the Honorable the Court of Directors. In thus severing a connection which has existed so long, and in losing a member whose ripe experience and matured views have on all occasions proved so useful, we feel that we cannot do otherwise than bear the highest testimony to the value both of his services and example, and we beg to place in the appendix the acknowledgment by Government of the value of his disinterested labours.

Changes at the Board.

6. The vacancies thus caused at our Board, and a previous one produced by the lamented death of Captain Hart, have been filled up. Mr. Warden, formerly a member, has been nominated by your Lordship in Council to succeed Sir Erskine Perry as President, and Mr. Larken and Captain Wallace to succeed Mr. Warden and Captain Hart as members; while Mr. Bhaú Daji, a Graduate of the Grant Medical College, has been elected to a seat by the Committee of the Elphinstone Institution in succession to our late Native colleague, alluded to in the last paragraph.

General results of the year satisfactory.

7. On taking a general view of the state of education during the year, we believe we may safely assert that it has been most satisfactory. In our three principal establishments,—viz. the Elphinstone Institution, the Poona College, and the Grant Medical College,—the results shown by the examinations were as gratifying as the high character and attainments of the different Profes-

sors led us confidently to expect. Our English schools are also in a satisfactory state, particularly the one at Surat, which, under the able management of Mr. Graham, maintains the high character it has long held. Our vernacular schools, too, are in a decidedly more encouraging condition than usual. With five exceptions, each school has been visited and closely examined by one of the Superintendents, and the different reports by these gentlemen show an increasing improvement.

Inefficiency of vernacular teachers.

8. For many years past we have been repeatedly compelled to allude to the inefficiency of many of our vernacular teachers, some of whom were worn-out and utterly incompetent to discharge their duties, while others, who possessed a tolerable amount of information, seemed wanting in practical skill, and quite incapable of imparting to others the knowledge they themselves possessed. We have always considered it impossible to dwell on this subject too frequently or too earnestly, for it was evident that on a reform of this state of matters depended all reasonable hope of improvement.

Difficulty in removing them.

9. Great difficulty, however, has always existed in making any reform, in consequence of its having been ruled that this class of public servants were not entitled to the benefits of pension. The subject, therefore, involved two important points for consideration: *1st*, and mainly, the well-being of our schools; and *2ndly*, the individual well-being of our teachers. We had to bear in mind that most of the masters in the Guierat division were educated by the Native Education Society some twenty years ago, and that at that time the attainments they possessed were considered amply sufficient for

the performance of their duties. But of late we have been desirous of introducing a much higher standard, for it became every year more apparent that if our system was to prove beneficial by developing the intellectual faculties, by disciplining the moral powers, and by cultivating a sound judgment,—without which education is scarcely worthy of the name,—minds better disciplined and better stored than those of many of our existing teachers must be brought to bear upon our schools. In endeavouring, however, to gain the great object of securing the services of men of higher attainments, we had to guard carefully against committing injustice to the existing worn-out teachers; and we felt that if these men were to be removed, due regard should be paid to their future comfort by giving each teacher a gratuity.

Grant of gratuities to worn-out teachers.

10. We therefore laid before your Lordship a list of vernacular masters whose incompetence had been repeatedly brought to our notice by the Superintendents, and we suggested that, as it had been ruled that no portion of the current annual grant was to be appropriated to this purpose, gratuities might be granted out of the unexpended portion of the reserved fund of former years, according to a scale which we laid down, after a careful consideration of their length of service and comparative merits. This proposal having been sanctioned by your Lordship in Council, we have taken measures for replacing these teachers by young, active, and efficient men; and we feel confident that this important measure will be attended by the happiest results. As the reserved fund, however, was nearly exhausted, we considered it necessary, in taking steps for carrying the measure into effect, to explain that the present grant of gratuities was to be viewed

as a special case, and not construed into a precedent for future guidance. We look forward to the day, however, when this deserving class of public servants will be acknowledged to be entitled—in common with the public servants in other departments—to the benefits of pension, a measure which would be better calculated to increase their usefulness, and to raise their position in the eyes of their countrymen, than any that could be adopted.

Necessity of increase to Annual Grant.

11. But though the state of education has been satisfactory, there has not been that extension of operations which is desirable, in consequence of the inadequacy of the amount of the present annual grant. We have dwelt on this subject in each of our late reports, and we feel compelled to do so once more, for on an increase to the present means at our disposal depends, not only all hope of progress, but even the possibility of keeping up existing institutions. As your Lordship in Council, however, has represented this state of matters to the Honorable Court of Directors, and accompanied the representation by an appeal for further aid, we trust before long to hear of an increase to the grant.

Measures to reduce expenditure.

12. In the mean time our expenditure continues greatly above our income, and though the excess has hitherto been defrayed out of the reserved fund, this fund—formed out of the unexpended portions of the grant of former years—is now nearly exhausted. Under these circumstances it is evident that, unless a considerable increase is made to the educational grant, our operations must inevitably be curtailed. In this embarrassing state we have taken every practicable opportunity of carrying out the instructions of Government to reduce

expenditure. We are, in accordance with your directions, closing gradually all vernacular schools which seem unworthy of support, and are refusing all applications for assistance in establishing new schools, causing it distinctly to be understood that all such schools must be entirely self-supporting. We have also considered it necessary to dispense with the services of the Inspector of Schools in each of the divisions. This step, however, will not impair the efficiency of the schools, as each will be annually examined by one of the Superintendents, to whom the Inspector was merely an assistant. By thus maintaining a rigid adherence to economy, the excess of expenditure over income, which in our last report was stated to be Rupees 19,681, has been reduced to Rupees 10,877.

Further retrenchments incompatible with efficiency.

13. We trust, however, there will be no necessity for further retrenchments. We have examined very carefully into the expenses of our different institutions, and we find it impossible to curtail their expenditure without reducing their efficiency. We are, moreover, convinced that the proper degree of efficiency cannot be maintained without increased expenditure. Many of our schools require the aid of assistant teachers, whom in the present state of the funds it is impossible to appoint, and many of our masters are deserving of higher salaries, which, for the same reason, it is impossible to give. Moreover, we are of opinion that it would be most unwise to make any reduction in the number of those schools which are in an efficient state, more particularly at the present moment when a fresh impetus has been given to the cause of Native education by the important movements which have lately been taking place among the Natives themselves.

14. We beg to explain, however, that the non-extension of operations just alluded to refers exclusively to extension by means of the general grant of Rs. 1,25,000. We are happy to state, however, that a commencement, by means of other funds, has been made, to introduce an improved system of education into two provinces which hitherto have been very backward. We allude to Sattara and Katiawar. The means placed at our disposal for the former province consist in an annual grant by the Honorable the Court of Directors of 7,000 rupees. The resources for the latter are partly derived from the annual interest of 5,000 rupees on the capital of the Infanticide Fund, which has been appropriated by Government to purposes of education, and partly from subscriptions by the different Chiefs. The precise amount available is not certain, but we believe we are justified in stating that the income from both sources will not be less than 12,000 rupees a year. We regard this commencement of proceedings in these two provinces with peculiar satisfaction; and we trust the steps taken will be attended with the happiest results.

Extension of Education to the provinces of Sattara and Katiawar.

15. We will first mention some particulars connected with the measures we have adopted in the Sattara districts. On receiving intimation of the annual grant we put ourselves in communication with Mr. Ogilvy, the Commissioner in Sattara, requesting him to favor us with his views on the subject of the best mode of applying it for educational purposes, feeling assured that, in the adoption of any system which might be considered best adapted for the requirements of the province, the fullest

Measures adopted in the Sattara districts.

reliance ought to be placed on that intimate acquaintance with the particular character and wants of the inhabitants which that gentleman's local position afforded. We were in consequence favored by the Commissioner with an able report on the existing state of education in the province, and with some valuable suggestions on the best mode of applying the annual amount appropriated for the purpose. It appeared by this report that an English and vernacular school in the capital, founded by the late ex-Raja, was the only establishment of public instruction in the Sattara territories which received any aid from the late Government.

Educational statistics in the Sattara province.

16. By another communication from the Commissioner, relative to the number of indigenous schools and the extent of assistance rendered by the late Government in furtherance of education, it appears that the amount granted by the late Raja for educational purposes in his territories was Rupees 5,000 annually. It further appears that the total number of indigenous schools is 448. Of these, 313 are self-supporting and conducted by self-constituted teachers, giving instruction to about 5,430 scholars, who support the schools by paying fees of from two to four annas a month each. The remaining 134 schools are free, being supported by Brahmin devotees: 127 of these are exclusively devoted to training Brahmin children as Hindu priests.

Tour through the province by the Superintendent of 1st Division.

17. Our next step was to depute the Superintendent of the Schools of the 1st Division to make a tour through the principal towns in the province, for the purpose of reporting on the best localities for establishing a few schools, as well as of personally examining into the state of the existing school at

Sattara. In the course of his tour the Superintendent visited Sattara, Bijapur, Pandharpur, Kurar, Rahimatpur, Wai, Vetay, and Mussur. In all these places he explained very fully our objects in endeavouring to plant schools, as well as our principles in conducting them; and he at the same time pointed out the advantages to be derived by the inhabitants from educating their children. In some of these towns the people expressed great willingness to aid and assist our efforts, and in his subsequent report on the subject the Superintendent expressed his warm acknowledgements for the valuable assistance he had received from the Commissioner.

Re-organization of the school at Sattara.

18. With these reports before us, we proceeded to give very full consideration to the mode in which an educational system should be introduced, for we had to bear in mind that subsequent success would greatly depend on the introduction of sound principles from the commencement. In the first place it was evident that the existing school at Sattara, which was founded by the ex-Raja's Government, and was most defectively organized, must be entirely remodelled, and placed upon the general footing of our English schools in other parts of the Presidency. We therefore appointed as master Vishnu Moreshwar Bhire, a young man of talent, energy, and industry, whose services had frequently been brought to our favourable notice by Major Candy, Principal of the Poona College, in which he had long served as an English teacher. He took charge of his duties in December.

Best localities for establishing schools.

19. We had next to decide on the number of vernacular schools to be immediately established, and the towns in which they were to be placed,

and here we mainly adopted the recommendation of the Commissioner, by taking measures for opening schools at Bijapur, Pandharpur, Wai, and Kurar. At Wai a school was opened in April, and we hope before long to supply the other towns named with competent teachers, selected from the Normal Class of the Poona College. We also thought it desirable to establish two vernacular schools at Sattara.

Organization of these schools.

20. In considering the question of the organization of these schools and the scope of studies to be carried on in them, we thought it desirable to appoint to these, and to all similar schools, a master acquainted with the English language, and competent to give elementary instruction in it. We would explain, however, that we by no means seek to introduce the study of English as an object laid down or desired by the Board. On the contrary, we would rather wait till the advantages of English, under an English Government, have become sufficiently appreciated by the people to make them seek for it as a favour. Our principle of having a master acquainted with English is based solely on the ground that such a man, having received an education founded on a wider basis, will be found competent to give a sounder education, whether in Maráthi solely, or in Maráthi combined with English, than a master merely acquainted with his vernacular.

Self-supporting schools.

21. But although we have felt it necessary, at first starting, to defray the greater part of the expense of the schools just named, we by no means approve of the principle that the Government should do everything, and the people themselves little or nothing. It is obvious that,

even if the annual grant for the Sattara districts was much larger than it is, we should be unable, by its means alone, to diffuse education widely through the province. We are convinced that it is only by the gradual introduction of good self-supporting schools that anything like general education can be introduced. It is hopeless, however, to look for this state of matters at present, and it will be necessary, we fear, for a long time to come, that Government should pay a portion of the salaries of such superior masters as we desire to introduce. Still we think it extremely desirable to lay down from the first the sound principle that Government desire only to *assist* the people to educate themselves, and that the support for the schools should be mainly borne by those who profit by them, with such occasional assistance from Government as circumstances may render necessary. We have accordingly given general intimation of our views throughout the province, and have explained our intention of only extending assistance, in future, to such places as show by their readiness to support a school that they appreciate the value of a good education. By steady adherence to this principle we shall probably, by degrees, be enabled to introduce education much more widely than there would be any likelihood of doing, if the entire maintenance of schools was to be defrayed by Government.

22. We next proceed to give a brief detail of the measures which have been adopted for introducing an improved system of education into the province of Katiawar. The subject has long occupied much of the attention of the Political Authorities in that province, particularly of Lieutenant Colonel Lang and Major Aston; but it was

Measures adopted for introducing education into Katiawar.

surrounded by so many difficulties, that until very recently it was found impossible to adopt any plan suited for practical purposes.

Difficulties in introducing education.

23. The peculiar nature of the political and social condition of Katiawar seemed one of the greatest of these difficulties, and appeared to us to render it one of the most unpromising provinces on this side of India for the introduction of Government education. A semi-feudal country,—cut up into petty independent chieftainships,—peopled by races of different blood,—and having for its vernacular a language (gujaráthi) in which no literature and but few competent masters are to be found,—it was evident that the difficulties we had met with in the more civilized parts of India would here be ten-fold increased. Each Chief, too, jealous of his own independence and privileges, and looking with anything but complacency on the independence and privileges of his neighbour, it was evident to the Political Authorities that the difficulty of inducing the Chiefs to co-operate for any object involving the contribution of money would be found exceedingly great, if not altogether insurmountable. Yet it is on these very Chiefs that we are mainly dependent for funds for carrying out educational objects.

Proposed establishment of a central institution at Rajkote, and branch schools in the districts.

24. The available resources being limited, it was at one time considered desirable to confine present efforts to the establishment of a central educational institution at Rajkote, but it became evident to the Political Authorities that none of the Chiefs would willingly subscribe to a central institution alone, as parents, though possessing the means, would not be inclined to send their children from a distance to be

educated in it. Colonel Lang stated that he had great difficulty in prevailing on the Chiefs to agree to anything more than to maintain a school to be established in their own capitals, the fact being that scarcely any of them are as yet aware of the value of education.

Same subject.

25. It was also pointed out by Major Aston, that to excite that permanent interest in these Chiefs, which would induce them to continue willingly their pecuniary contributions, and avail themselves of the educational resources to be afforded, it was necessary that they should have ocular demonstration of the improvements to be introduced, and an earnest of their participating in the advantages of these improvements within their own jurisdictions. It was therefore considered essentially necessary by these gentlemen, that, simultaneous with the establishment of a central institution, branch schools should be established in some of the principal towns in the province.

System to be pursued on first starting.

26. With regard to the system to be pursued on first starting, we felt that we were scarcely in a position to offer practical suggestions of much value, for in a semi-feudal province like Katiawar, the internal relations of which were so wholly unknown to us, and in so rude a state of society as seemed to prevail there, it was evident that the application of anything like a system, founded on an experience belonging to a different order of things, seemed altogether premature. We were therefore of opinion, that the best mode of making a beginning, and of laying the seeds of a good system, would have been for the Political Agent to secure the services of an experienced European, skilled in practical teaching and in the science of education, and to have given him free scope to carry out his

own views, and the views of the Political Agent, as experience might seem to justify, unfettered by rules which had been framed for a different state of matters in the British provinces.

Same subject.

27. It was the opinion, however, of the Political Authorities in Kátiawar, that the wants of the province would, for the present, be amply provided for, by nominating an educated Native of talent and experience in the double capacity of Head Master of the Central Institution, and Superintendent of the Schools in the Districts. It was pointed out that the advantages arising from the better health which a Native would be likely to have,—from his consequent more continuous labours,—and from his more ready access to his countrymen,—would outweigh, in the present state of Katiawar, the probable advantage to be derived from a resident European; and to these advantages was to be added the very important consideration of the comparatively slight expense. To these views we unreservedly deferred, for we felt that the opinions of the Political Officers were entitled to the utmost consideration, being founded on that intimate acquaintance with the character, wants, and peculiarities of the inhabitants, which parties at a distance were necessarily ignorant of. We felt, moreover, that the improvement of the existing state of society in the province must mainly depend on the influence, knowledge, and zeal of the local functionaries, and that these functionaries should be left to introduce education in such manner as they might consider best adapted to the requirements if the province.

Medium of instruction in the central institution and branch schools.

28. With regard to the medium of instruction for the central institution, there has been but little difference of opinion. It has been admitted

on all hands as being desirable, that while affording the means of a thoroughly good education in English, the institution should also provide instruction in the vernacular, and our experience shows, that the teaching of both languages may proceed, *pari passu*, with great advantage. Thus, while opening the means of improvement to all who might choose to confine their studies to their mother-tongue, those who prefer the medium of English would be enabled to pursue, through it, those studies which there is little hope at present of facilitating in Gujaráthi. With regard to the branch schools, they are intended to be solely vernacular. We have, however, mainly selected as teachers young men possessing some knowledge of English, on the principle that such men, having received an education founded on a wider basis, will be found more competent to give a sound education in Gujaráthi than teachers merely acquainted with their vernacular. The number of teachers already selected is limited to six, including Durgarám Mancharám, the able Master of the School No. 1 at Surat. The selection of a Head Master has not yet been concluded. There are several difficulties in the way of securing the services of a man of the precise character required, and we are at the present moment in correspondence with Colonel Lang on the subject. We hope in our next report to give full particulars on all points.

Central institution the nucleus for educational progress.

29. The central institution at Rajkote, it is to be hoped, will become the nucleus for educational progress throughout the province. Its primary object, of course, will be to afford a sound education to all who come within its walls, but a secondary, and scarcely less important object, will be

to show by its results the benefits of education, and thus to create a desire for similar institutions in other places. As the Head Master is at the same time to be Superintendent of the schools in the districts, it is calculated to exert a beneficial influence throughout the province by extending gradually to these schools the improvements which experience may point out for introduction into the central institution. It may also, in course of time, become the source of improvement to the indigenous schools themselves, and ultimately be made the nursery for training masters for all the schools in the province.

Collegiate education.

30. Very many years must elapse before any demand will be created for education of a higher standard than that of a well-conducted school; but there can be little doubt that the happy time *will* arrive, and the following passage from an able report by Major Aston on the system of education best suited for the province, points to an effective and excellent means for providing a collegiate education the moment it may be required. After stating that the education in the central institution, for a long time at least, must stop where the collegiate course would commence, Major Aston goes on to remark :—" Another source of expense to be provided for is the sending of certain distinguished pupils to Bombay, who might be willing to avail themselves of proffered assistance to continue their studies at the Elphinstone Institution. This is another means by which the want of a college in Katiawar will be partially supplied by the educational resources of Bombay; and if such steady pupils be selected as are unlikely to be corrupted by temptations consequent on their separation from their families, they may return to Katiawar enlightened missionaries of knowledge, with minds expanded by what

has been acquired both without and within the walls of a college in the capital of Western India, to disseminate knowledge, and with it an interest in education, in their several localities."

Total number of students receiving education.

31. We now proceed to notice separately the different institutions under our charge, prefacing our remarks with the following table, showing the total number of students receiving Government education at the close of March last:—

	No. of Students.
Elphinstone Institution	984
Poona College	497
Ditto ditto Branch School	82
Grant Medical College	50
English School at Surat	341
Ditto Rutnaghiri	46
Ditto Ahmedabad	125
Ditto Ahmednuggur	74
Ditto Dharwar	29
Ditto Broach	95
Ditto Tanna	94
Ditto Sattara	75
Vernacular Schools—1st Division*	4,999
Ditto ditto 2nd ditto	2,741
Ditto ditto 3rd ditto	4,063
Ditto ditto at the Presidency	581
Total...	14,876

* Including the village schools in the Purandhar districts, and the new Schools at Sattara.

ELPHINSTONE INSTITUTION.

Establishment of Professors on April 30th, 1853.

Principal, and Professor of Logic, Political Economy, and Mental and Moral Philosophy.....	JOHN HARKNESS, A.M.
Acting Professor of History and General Literature	R. S. SINCLAIR, A.M.
Acting Professor of Mathematics and Natural Philosophy	DÁDÁBHÁI NAOROZJI, Esq.
Professor of Botany, Chemistry, and Geology.....	H. GIRAUD, M.D.
English Master..... ..	W. DRAPER, A.M.

32. Throughout the period embraced in this report, the Institution has continued under the immediate charge of Principal Harkness, whose long experience of eighteen years as an Elphinstone Professor has been of the highest value to the Institution.

Principal Harkness.

33. Several important changes, however, have taken place among the other Professors, and first we have to record —and in so doing deeply to deplore—the severe loss which the Institution and the cause of Native education have sustained by the death of Mr. Patton, the accomplished Professor of Mathematics. After a distinguished career of nearly five years, Mr. Patton was compelled by severe illness to leave India on sick certificate in October last. He carried with him our highest esteem, and our most sincere wishes for his recovery and return; but hopes such as these were not to be

Death of Professor Patton.

realized. He died on the 18th November, as the vessel in which he was a passenger was entering Table Bay. It may be some consolation to his friends to know that, though thus dying a stranger in a distant land, there was no want of respect to his memory even there, for a gentleman belonging to the Medical Service of this Presidency, on sick certificate at the Cape, accidentally heard of his arrival and death, and with much good feeling assisted in making arrangements for the funeral, and attended his remains to the grave. Mr. Patton's memory will long be cherished by all who knew him. With talents of a high order, and acquirements of a wide range, were combined a simplicity of mind and a singleness of purpose, which will not easily be forgotten, and we must be permitted to record our deep respect for his character and attainments, as well as our estimation of his ardent encouragement of everything which he considered calculated to improve the social condition of the people among whom he lived.

Departure of Mr. Reid, and resignation of Dr. Haines.

34. We have next to record our having been deprived, for a time, of the services of Mr. Reid, the Professor of History and General Literature, who proceeded to Europe in March last, on a twelvemonth's leave of absence. Dr. Haines, who officiated to our entire satisfaction as Professor of Chemistry and Botany during Dr. Giraud's absence on sick certificate at the Neilgherry Hills, vacated his temporary post at the close of December, on this gentleman's return.

Arrangements for the Professorships of Mathematics and History.

35. In consequence of the departure of Mr. Patton in October, and the anticipated departure of Mr. Reid in March, it became necessary to procure further assistance from home,

and having received very high testimonials of the ability, acquirements, and character of Mr. Sinclair, a Graduate of Trinity College, Dublin, who had distinguished hinself both in science and literature, we took the necessary steps, in communication with your Lordship in Council and with the Honorable the Court of Directors, to obtain this gentleman's services for either department. Our offer of a professorship was accepted, and Mr. Sinclair arrived in February. At the time of his arrival we heard of the lamented decease of Mr. Patton, Professor of Mathematics and Natural Philosophy, and we therefore filled up the appointment, thus vacated, by nominating Mr. Sinclair to it. Circumstances, however, rendered it necessary that Mr. Sinclair should perform the duties of Professor of History and General Literature, and this arrangement enabled us to retain Mr. Dádábhái Naorozji in the Acting Professorship of Mathematics and Natural Philosophy, to which he had been nominated on Mr. Patton's departure in October, and the duties of which he had performed to our entire satisfaction.

Principal's report.

36. The Annual Examination commenced on November 29th, and, excepting on Sundays, was continued daily till December 18th, the examinations each day lasting from 11 A. M. till 5 P. M. On its conclusion, Mr. Harkness prepared his annual report, which was laid before us in February. As it contained much valuable matter, as well as a minute account of the state of the Institution, we decided on having it printed; and we now beg to submit a copy in the appendix. The general arrangement of the report, and its classification of subjects, will be found in its table of contents. It includes separate reports by the different professors on the subjects of their respective classes, the

written examination questions, specimens of answering, and the general results of the examination. The report will be found to contain such a full detail of the state of the classes in every division of the Institution, that it seems quite unnecessary here to enter into any particulars.

Satisfactory state of Institution.

37. We have reason to be perfectly satisfied with the progress and present state of the Institution in every department, and as the character of the college classes must ever depend in a great measure upon the nature of the previous training in the school, it is a source of peculiar satisfaction to us to find the latter in an excellent state. We notice in particular more frequent allusions in the report than usual, even in the junior classes, to the excellence of the reading, the improvement in orthography, the exercise of the judgment in parsing, and other matters of this nature, which, though in themselves apparently trivial, are in fact of no slight importance, as giving promise of great progress hereafter when the student passes on through the upper school into the college classes.

Subjects taught in college classes.

38. These classes are in charge of four professors. Those in logic, political economy, and mental and moral philosophy, were taught throughout the year by Professor Harkness. The classes in mathematics and natural philosophy were taught during the greater part of the year by Acting Professor Dádábhái Naorozji; history, general literature, and jurisprudence by Professor Reid, till March last, and chemistry and botany by Dr. Haines till January. Full particulars on each subject will be found in the report by Mr. Harkness, including the names of the works used by each professor.

The result of the annual examination proves that the duties of these gentlemen have been faithfully and zealously performed.

Mr. Reid's classes in History, Literature, and Jurisprudence.

39. As Mr. Reid has vacated his post for a time, it seems due to that gentleman to state that his classes, in common with those of every division of the college, were in a most satisfactory state. The extent and variety of their studies in history and literature are amply detailed in his special report, and English composition has received that marked attention which has invariably been paid by him to this subject. It will also be seen that the delivery of a course of lectures on jurisprudence has formed a new feature in the studies of the year, and we trust that Mr. Reid's labours in this important subject will not be unattended by benefit.

Geology added to the Professorship of Chemistry and Botany.

40. We have long considered it desirable to introduce systematically the study of geology. The college course runs through four years, and thus allows ample time for the three subjects of botany, chemistry, and geology. It is quite unnecessary to say a word on its importance as a science. The rapid foundation of geological museums and lectureships in all parts of Europe proves the daily increasing interest which is now taken in the subject; and we think the time has arrived for introducing it as a branch of general education. We are, moreover, of opinion, that few subjects will prove more interesting to a Native student than that which embraces the study of the formation of the crust of the earth, and the investigation of the varied nature of its structure and contents. On reference to the Principal,

its introduction was approved of, "not only because any scheme of a liberal education would be justly considered defective without it, but because, dealing as it does, with facts collected from the material world, and admitting in its most important conclusions of a high degree of certainty, the science is well fitted to exercise and improve the faculty of observation, to enlarge the mind by the proofs of succession and causation which it exhibits, and to lead to an examination of those processes by which general truths are obtained from particular facts." As the subjects of study in the institution, however, are numerous, we do not intend that of geology to be too much dwelt on. We rather wish to limit instruction to its general principles and facts, with the view of exciting a taste for the subject, and of enabling students, after leaving the institution, to pursue the study with facility and advantage, should they be so disposed. It will be sufficient for the present to impart such an amount of knowledge as may show of what nature it is, on what evidence it rests, and by what means additions to it are from time to time made. Towards the close of the last session, Dr. Haines gave a few lectures on the subject, including the general structure, figure, and density of the earth,—outlines of mineralogy,—principles of zoological classification,—stratification,—the origin and the mineralogical characteristics of the several kinds of rocks,—fossil organic remains,—and tertiary formations. Dr. Giraud has now taken up the subject systematically, and viewed in connection with its kindred sciences of botany and chemistry, we have placed in the appendix Dr. Giraud's synopsis of his course of lectures on these three subjects.

Scholarship examination.

41. We mentioned in our last report that the scholarship examination was in future to be held in December, at the

time of the general examination of the Institution, instead of in April, as before. By this change the course of study in the college division corresponds in point of time with the course of study in the school, the session in both commencing with January, and terminating in December. Particulars of the result of the examination will be found in the Principal's report. We need here merely state that the result was very satisfactory, inasmuch as out of forty-eight scholarships, with which the Institution is endowed, forty-seven were awarded, viz. three 1st Class Normal, six 2nd Class Normal, twelve West, twenty-four Clare, and two Gaekwar. The three highest scholarships, viz. the 1st Class Normal, were won by Náráyan Bhái, Pestonji Jahánghir, and Hormazji Edulji, the three best men in the Institution. The first, a fourth year's student, obtained 74 per cent. of the estimated value of the full answers in the studies of his year. The two others, third year's students, both obtained upwards of 60 per cent. Náráyan Bhái, therefore, now occupies the distinguished position of the best man of the year, the post of honor which we mentioned in our last report as having been won by Vishwanáth Náráyan. The latter resigned his scholarship in November last, having been selected by Major LeGrand Jacob, the Political Agent in Kutch, for a situation in his office, on a salary of Rupees 110 a month. Major Jacob made the selection in consequence of having seen Vishwanáth Náráyan so highly spoken of in our annual reports. Major Jacob hopes, we believe, that with the assistance he will be able to give him, and with the use of his library, Vishwanáth will be able to make good use of the education he has received, and be instrumental in diffusing it under the Rao's Government. We mention these facts both in justice to Vishwanáth himself, and to record the warm

interest taken by Major Jacob in the advancement of educated Natives.

Presentation of scholarships and prizes.

42. The scholarships, alluded to in the last paragraph, were presented to the successful students by Sir Henry Leeke, R. N., who, in consequence of the unavoidable absence, through indisposition, of the Right Honorable Lord Frederick FitzClarence, did us the honor of presiding at the annual meeting which was held for the purpose in the Town Hall on the 2nd April. We may here also mention, in justice to the successful competitor, that a valuable prize of 150 rupees,—given by a Native gentleman possessing an ardent desire for the improvement of his country and countrymen,—for the best essay "On the advantages of Railways in a country, and of communication by the aid of steam power between different countries, particularly in reference to the Bombay Presidency," was awarded to Kaikhasrao Hormazji, formerly a 1st Class Normal scholar, and now a teacher in the Institution. The same gentleman further showed his public spirit by printing, and distributing gratuitously, five hundred copies of the essay.

Sir Erskine Perry's gold medal.

43. We may also take this opportunity of mentioning that, previous to the departure of our late President, Sir Erskine Perry, he gave an additional proof of the warm interest he takes in the work over which he so long presided, by placing at our disposal, annually, a valuable gold medal, as a prize for competition among the normal scholars for the best essay on a subject to be annually named. The subject for the first essay, selected by Sir Erskine Perry himself, was the following:—"On the evidences which tend to show the relationship of

the Hindu and the Englishman in the family of nations, distinguishing between the Aryan or Hindi-speaking Hindu, and the previous inhabitants of India." His object in selecting this subject was to call the attention of educated Natives—1*st*, to the affinities between the English and the Sanskrit family of languages; 2*ndly*, to the evidence in favor of the Brahmans and Kshatris immigrating into India from some point to the west, and of the English and other German nations entering Europe from some point to the east; 3*rdly*, to the theory of Prichard, whether true or false, that the difference of color between the Hindu and European is wholly attributable to local causes; and 4*thly*, to the distinction between the races who speak Hindi and those who speak a tongue of a different family —a distinction partially known to Natives, who connect the Brahmans in their ten great classes with Gaud and Dravid, and which Europeans have lately classified under the terms Aryan and Turanian. We regret, however, to state that there were no competitors for the prize. The subject for the next essay has not yet been decided on.

Paying students in the college department.

44. In our report for 1850-51 we mentioned, that on the recommendation of Mr. Green, who was then Acting Principal of the Institution, we had sanctioned the adoption of a measure for extending to the sons of the richer classes of Natives the benefit of a collegiate education, without insisting on the hard test required from endowed scholars in mathematics; and a class of students was accordingly formed, the amount of fee being fixed experimentally at five rupees a month. They were allowed to attend one or more of the courses of study, as might suit their own views and their own opinion of what they were prepared to profit by. They were not allowed to compete

for prizes in any subject without attending three courses, and they were not allowed to compete for prizes in three subjects without attending the four courses comprised in the session. The number of students, in the earliest class thus formed, consisted of nine. This number increased during the last session to eighteen. The privilege of prosecuting their studies in this manner is much appreciated by the students; and, with the view of enlarging the benefits, we lately decided, on the suggestion of the Principal, that admission to the lectures of one professor should be fixed at thirty rupees a year, payable in advance; of two professors, at fifty rupees; and of three or more, as at present, at sixty rupees a year.

Fees.

45. As some evidence of the healthy working of the institution, and of the estimation in which it continues to be held by the Native community generally, we may mention that the amount of fees received from the students during the year was 12,369 rupees, a larger sum than was ever before received during the same space of time. During the preceding year they amounted to 11,723 rupees.

Number of students.

46. The total number of students in April was 984, viz. 86 in the college department, 577 in the central school, and 321 in the branch schools.

POONA COLLEGE.

Establishment of Professors on April 30th, 1853.

Principal	MAJOR CANDY.
Professor of English Literature ..	REV. A. G. FRASER.
Professor of Mathematics and Natural Philosophy	REV. JAMES McDOUGALL.
Acting Assistant Professor of Vernacular Literature.....	KRISHNA SHASTRI CHIPLUNKAR.
Assistant Professor of Natural Philosophy in the Vernacular ...	KERU LAKSHIMAN CHIPLUNKAR.

Sanskrit Department.

Professor of Rhetoric	NARAYAN SHASTRI ABHYANKAR.
Professor of Logic	NARSING ACHARYA OK.
Professor of Grammar	DHOND SHASTRI DENGNEKAR.
Professor of Law	NILKANT SHASTRI BHAT.

47. In our last report we gave an account of the opening of this college, then recently formed by the amalgamation of the previously existing Sanskrit college with the English school. We are now happy in being able to state that, notwithstanding the great changes which were then introduced, and notwithstanding the fact that some of these changes were peculiarly unpalatable to many Brahmins retaining the prejudices of earlier days, everything has proceeded most harmoniously, and we have reason to believe that many of the influential Natives who were warmly opposed to the organic changes which were

Satisfactory state of the college.

introduced, are beginning to admit that they were made in a right direction. With regard to the younger members of the Poona Native society, there can be no doubt that they fully appreciate the advantages of the system now being carried out in the reformed college. We are also happy in being able to state that the college is progressing most satisfactorily under the immediate control of Major Candy, the Principal, a gentleman who has been so long and so honorably associated with educational progress in the Deccan. To him, and to all the professors, both European and Native, our best acknowledgments are due for their unwearied exertions.

Resignation of Mr. Green, Professor of English Literature.

48. The change of greatest importance in the educational staff is the resignation of Mr. Green, Professor of English Literature. After a distinguished career of nearly ten years in the Government educational service, this gentleman resigned in October. He joined the Poona College on its formation in 1851, having previously, for nearly two years, performed the arduous and important duties of Principal of the Elphinstone Institution. We have repeatedly had occasion to bring Mr. Green's services to the notice of Government, and your Lordship in Council is well aware that the educational department has lost a man of powerful intellect, of large experience, of unbounded energy, and of untiring zeal. It is a consolation, however, to know, that though Mr. Green's services are lost to us, they are not lost to the cause of education, for in his new career as Principal of the Parsi Educational Institution, a large segment of the Native community have the full benefit of his talent and experience, and we warmly congratulate the Parsis on having obtained the services of so distinguished a man.

49. The nomination of a successor to the important post vacated by Mr. Green engaged our most earnest attention; and in selecting the Rev. A. G. Fraser we believe we have nominated a gentleman well qualified for the post. We have reason to feel confident that his previous studies and pursuits peculiarly fit him for the appointment. Mr. Fraser has had extended opportunities of making himself acquainted with the various systems of education pursued in America and France as well as in England and Scotland, and he possesses an intimate acquaintance with the literature of France and Germany, acquired in the languages of those countries.

Appointment of Rev. A. G. Fraser as Professor of English Literature.

50. We have also to record a change which has taken place in the Sanskrit department. Moreshwar Shastri Sathe, who for thirteen years had been the Principal Shastri and Professor of Rhetoric, has resigned his connection with the college, on being appointed a Munsiff at Surat; and we have much pleasure in bearing testimony to his talent, attainments, and general intelligence. We believe there are but few, if any, Natives of greater learning on this side of India, and we beg to express our best wishes for his success in the new office to which he has been appointed.

Resignation of Moreshwar Shastri Sathe, Principal Shastri and Professor of Rhetoric.

51. We considered it desirable to take advantage of this resignation to abolish the appointment of Muktasar or Principal Shastri. When the college was wholly Sanskrit, it was considered desirable to have one Shastri in authority over the others, but now that Sanskrit is only one of several departments, this neces-

Appointment of new Professor of Rhetoric.

sity no longer exists. On the recommendation of Major Candy, we selected Náráyan Shastri Abhyankár for the vacant Professorship of Rhetoric. He is a Pundit of good repute for learning, and quite willing to co-operate personally with Major Candy in introducing the new system of teaching Sanskrit to other castes besides Brahmins.

Change in the period of the college session.

52. Your Lordship in Council is aware that the college session has hitherto commenced with June and terminated with April, the annual examination taking place in the latter month, and the report closing on the 30th,—May being a month of vacation. On the recommendation, however, of Major Candy, we sanctioned the annual examination being held in December, the session commencing with January. The examinations of the Elphinstone Institution and of the Poona College will therefore be held in the same month, and their reports embrace the same period. One reason urged for making this change was founded on the circumstance of April being the hottest month of the year at Poona, and therefore the least suitable for the close confinement and unremitting attention required by the annual examination of so large an Institution; whereas December, being the coolest month, seemed the most suitable.

Principal's report.

53. In accordance with this change, the examination was held in December, and Major Candy's report closes with the end of that month, thus extending over only eight months, instead of twelve. The report, which is equally minute and able, includes separate reports by the different Professors and Assistant Professors on the subjects of their respective classes, as well as examination questions, specimens of answering, and tables of results. It contains:—

I. Introductory and General Remarks.
II. Report on English Department.
III. Report on Vernacular and Normal Departments.
IV. Report on Sanskrit Department.
V. Report on the Department of Translation.
VI. Report on the Branch Schools.
VII. Report on the Press and Depository Departments.

Extracts from report.

54. The report of the Principal gives so clear a view of the transactions of the college during the eight months it embraces, and the special reports of the different professors such full information on the courses of study pursued in their respective departments, that we think we cannot more appropriately record some of the leading features of the period under review than by quoting from their reports.

Introductory remarks by the Principal.

55. From the Principal's introductory remarks we extract the following paragraphs, as those having most general interest:—

"The assistant teachers continued to attend one of my morning classes throughout the session, and some of them the senior class of the Professor of English Literature. As I desire to see them possess a critical knowledge of their mother-tongue, I shall require their attendance for some time yet. Some of them have very much improved in their knowledge of the vernacular, but others are still very backward.

"I have had two classes daily: one consisted of the assistant teachers of the college and the branch school, of the stipendiary students of the senior class of the college division, and of young men who, having business to attend to in the middle of the day, cannot attend the classes of the

professors, but are yet desirous of intellectual improvement. These last all pay a fee. I have admitted to this class as free pupils some of the teachers of the female schools, and the teacher of an infant school in the city. As they applied for permission to attend the class, I was glad to grant it, in the hope of making them more efficient for the discharge of their duties. This class attended from a little after 6 till 7½ A. M. The second class consisted of the junior class of the college division, and attended from 7½ till 9.

"I read a little of Goldsmith's *Citizen of the World* with the first class; but my chief attention with both classes was given to English and Maráthi composition, with translations from one to the other. I felt strongly, that whatever knowledge the students might acquire of political economy and logic, they would make but a poor show, and would really be worth little, if they could write neither English nor Maráthi grammatically and idiomatically. I therefore willingly undertook the drudgery of correcting their composition. Some have improved a good deal, but the English composition of most of them is still *very* inferior. Professor Fraser has engaged to pay particular attention to this point in the session just commenced. With respect to Maráthi composition, those students who came from the Sanskrit department to the English are, generally speaking, much superior to those who do not know Sanskrit. I have had considerable difficulty in convincing the students who had neglected the study of the vernacular of the importance of attending to it, but I hope that I have succeeded with most of them."

Classes in English literature.

56. From the report of the new Professor of English Literature we extract the following paragraphs:—

" I shall not, of course, be expected to furnish a report, properly so called, of the studies and progress of the college in the department of English literature during the past session, as I entered upon the duties of my professorship only at the end of the session, or at the beginning of the annual public examination. I shall, therefore, respectfully beg leave to confine myself to a simple statement of the general appearance made by the students in literature at the public examination.

" The public examination of a collegiate institution, extending over a month, I regard as the time of all the year in which there is the greatest love of study, the most intellectual excitement, the most rapid and valuable progress. Our examination, I know, was anticipated by the students with a lively interest, is remembered by them with great pleasure, and has had a most happy influence on their character as students. All previous attainments were brought to an honest and severe test. No labour-saving experiments, no excuse, no delinquency were allowed. Admission to a higher standing or to an honorary testimonial was made to depend upon the issue, though on such things we did not repose our main dependence, well aware that nothing but an invincible love of study for its own sake, and especially from a sense of duty, will invest a rigid and protracted examination with honorable and delightful associations.

" Reference is frequently made, by the students themselves, to the results of the recent examination, as an incitement to greater diligence in study; and a desire to reap personally the benefits of a higher order of education, and to fit themselves to act well their part in social and public life, leads many of them to an indefatigable and almost constant devotion to study. I am satisfied, from what I

have witnessed, that Poona scholars can be made to feel as much ardour, and exhibit as much energy and perseverance, by means of the highest and noblest motives, as the scholars of Prussia do by means of the political and civil influences which are made to bear upon them.

"I would propose the following course of study in English literature for the candidate school class and the college.

"Candidates for admission into the Freshman Class of the Poona College will be required to pass a strict examination in the following subjects* :—

"Correct reading; spelling, and writing from dictation; Grammar—a philosophical one, such as Connon's Course of Reading; McCulloch's, or a similar selection of extracts from our best writers; the art of Composition.

"*History.*—Murray's British India; Taylor's Manual of Ancient and Modern History; Geography; use of the Globes.

"COLLEGE DIVISION.

"FRESHMAN CLASS.

"*First Term, from January to May, 4 months.*

"*Classical Literature.*—Chambers' English Literature, 7th Period. Universal Grammar.

"*History.*—Heeren's Political System of Europe, supplemented by the histories of the different States of which it is composed.

"*Second Term, from June to December, 6 months.*

"*Classical Literature.*—Chambers' English Literature, 6th Period. Belles Lettres.

"*History.*—Heeren's, continued as above.

* In addition to the studies of the previous school classes.

"This class to write essays weekly, and to study elocution on Saturdays."

"JUNIOR CLASS.

"*First Term.*

"*Classical Literature.*—Chambers' English Literature, 5th Period.

"*Psychology.*

"*History.*—Heeren's, concluded.

"*Chemistry.*

"*Second Term.*

"*Classical Literature.*—Chambers' English Literature, 4th Period.

"*Logic* and *Metaphysics.*

"*History,* Ancient.

"*Chemistry* concluded, and *Mineralogy.*

"This class to write essays weekly, and to deliver selected speeches, previously committed to memory, in the hall of the college, every Saturday, as an exercise in elocution.

"SENIOR CLASS.

"*First Term.*

"*Classical Literature.*—Chambers' English Literature, 3rd Period.

"*Moral Philosophy.*

"*History.*—Ferguson's History of Civil Society, and Guizot's History of Civilization.

"*Botany.*

"*Second Term.*

"*Classical Literature.*—Chambers' English Literature, 2nd and 1st Period.

"*Political Economy.*

"*Political Philosophy.*

" *Zoology.*

" *Geology.*

" De Lolme on the Constitution of England. Paley's Elements of Political knowledge. Montesquieu's Spirit of Laws.

" This class to read essays, deliver original speeches, and conduct debates every Saturday, in the hall of the college.

" The course of instruction in the college for the under-graduates in the department of English literature will thus extend over a period of three years. The object of the system is not to give a *partial* education, consisting of a few branches only; nor, on the other hand, to give a *superficial* education, containing a little of almost everything; nor yet to *finish* the details of either a professional or practical education; but to *commence* a *thorough* course, and to carry it as far as the time of the student's attendance at the college.

" It is intended to maintain such a proportion between the different branches of literature and science, as to form a proper *symmetry* and *balance* of character. In laying the foundation of a thorough education, it is necessary that *all* the important faculties be brought into exercise. When certain mental endowments receive a much higher culture than others, there is a distortion in the intellectual character. The powers of the mind are not developed in their fairest proportions by studying language and literature alone, or natural, moral, or political science alone.

" The object in the proper collegiate department is not to teach that which is peculiar to any one of the *professions;* but to lay the foundation which is common to them all. The collegiate course should contain those subjects only which ought to be understood by every one who aims

at a thorough education. The principles of science and literature are the common foundation of all high intellectual attainments. They give that furniture, and discipline, and elevation to the mind, which are the best preparations for the study of a profession, or of the operations which are peculiar to the higher mercantile establishments or industrial arts, or of the important duties connected with civil employment.

"It will be seen that the system which I have sketched, and upon which I have already entered, includes a full course of natural history—a subject that has not previously been taught in the college, that is not estimated as it ought to be in any of our Indian educational institutions, but a most important branch of study for youths in our schools and colleges. To our Indian youths, the natural world, instead of a *living*, is actually a *dead* world. They know little or nothing of its facts, and absolutely nothing of its science. They have no settled opinion, no habitual feeling, that a tree, as a specimen of mechanism and workmanship, is more admirable than the Dipmál beside their temples.

"The knowledge of natural history, more than any other, becomes a perpetual companion in the town or in the country. Its curious and interesting facts are an inexhaustible and varied fund for social intercourse; so that days now passed in frivolous or useless, if not pernicious conversation, would be both agreeably and instructively spent, if our young men could be interested in the study of natural history, and in the collection of its specimens. Another great object of this study is to make them practical men when they enter upon public life—to qualify them to give encouragement and direction to agricultural improvements and the useful arts in the districts in which they may be

located. It will be seen, moreover, that the system I have proposed is formed on the principle of progressiveness; that those studies for which considerable mental discipline and a thorough knowledge of the English language are essential pre-requisites, are reserved for the latter part of the course."

Classes in mathematical department.

57. From the report of the Professor of Mathematics and Natural Philosophy we quote the following remarks:—

"*Senior Class.*—The short space of time which has elapsed betwixt June and December—that is betwixt our *first and second public examination*—is the reason why the *subjects* which the class has been enabled to embrace are not more numerous.

"When we met after the vacation month of May, this class revised all the work previously gone over, after which I turned their attention to analytical geometry of two dimensions.

"I dwelt somewhat at length upon this interesting branch of pure mathematics, because I was anxious that the students should fully appreciate the complete harmony which holds between synthetical and analytical investigations.

"After finding the equations to the point, the straight line, and the circle, we proceeded to the investigation of the properties of lines of the second order, and as we advanced found the equations not only to the conic sections, but also to a great variety of other curves.

"The class spent some time longer on analytical geometry of three dimensions. The differential calculus came next for our consideration. We treated very fully this most useful branch of pure science.

"At this stage of our progress it appeared to me that the time had now come when I ought to instruct in the

method of applying the many mathematical truths which had been required to the solution of physical problems. I there fore commenced to give instruction in natural philosophy.

" Mechanics came first in order. The class has gone over to good purpose all the conditions of statistical equilibrium, and the composition and resolution of concurring forces in one and in different planes.

" The class has also applied the theoretical truths arrived at to the solution of a great many interesting physical propositions."

" *Junior Class.*—After revising the ground already gone over, this class finished a complete course of algebraical analysis, plane trigonometry, measurement of heights and distances, analytical trigonometry, conic sections, parabola, ellipse.

" I mentioned in my last report that the junior students, from their very imperfect knowledge of the English language, laboured under many disadvantages. I am sorry to say that they still do so to a very considerable extent. The disadvantages are, however, becoming every day less and less. The period, therefore, is not far distant, when they will be enabled to express themselves with comparative ease on mathematical subjects.

" The earnestness with which the class as a whole have applied themselves to the acquisition of an extended system of scientific knowledge has almost invariably merited my approbation, and a good many have gone considerably beyond my expectation. I can, therefore, express my entire satisfaction with the progress and conduct of the young men who compose the junior mathematical class."

Vernacular department.

58. We quote the following paragraphs from the Principal's report on the vernacular department:—

" The arrangement of this department was modified at the beginning of the session, in accordance with the intention expressed in para. 37 of my last report. All the classes from the English department were remodelled according to the students' knowledge of Maráthi, without any reference to their knowledge of English, and the hours from 7 to 9 A. M. were fixed for their studies in the vernacular. In consequence of this arrangement, the studies of the English and vernacular departments do not interfere with each other. The students of the Sanskrit department come to the vernacular department in the afternoon, and are formed into classes by themselves.

" The arrangement works well, and this important department is becoming more and more satisfactory. I trust that particular attention to the vernacular will always be a distinctive mark of the college.

" About the date of my last report, Máhádeo Govind Shástri, the Professor of Vernacular Literature, was appointed Superintendent of the 1st Division of Government Schools, and Krishná Shástri Chiplunkár, the senior Translation Exhibitioner, succeeded him, under the title of Acting Assistant Professor. I am happy to state that Krishná Shástri has been very diligent in the discharge of his new duties, and has given me much satisfaction. His interesting report, which I subjoin, will, I am sure, be read with pleasure by the Board. I omit the mention of some things which I should otherwise touch upon, because they have been brought forward in the Acting Assistant Professor's report.

" With regard to Krishná Shástri's suggestion that some poetry should be read in this department, I beg to mention that some time ago I requested my personal Pundit to compile a volume of 'Elegant Extracts' from Maráthi

poets, which I hope to be able soon to present to the Board.

"The arithmetic and mathematics of the vernacular department are under the supervision of Assistant Professor Keru Lakshiman Chhatre, whose zeal makes him always ready to undertake anything in which his services can be useful. The Assistant Professor of Vernacular Literature, the Translation Exhibitioners, and the Master and Assistant Master of the Vernacular, all teach classes in this department, but as only a few of the Assistant Teachers of the English Department are qualified to be teachers of the vernacular (though I am labouring to make them, and hope that they will become so), there is still a scarcity of teachers in this department."

Classes in vernacular literature.

59. From the report of the Acting Assistant Professor of Vernacular Literature we quote the following paragraphs :—

"The translation classes were formed at the opening of this session. They are six in number, the sixth being of still later origin. The object in view in forming these classes is to teach the pupils the art of giving a faithful, idiomatic, correct, and, as far as possible, close version of English into Maráthi.

"*English studies of the Senior Normal Class.*—This class has read the whole of the Series of Lessons and Reid's Grammar very carefully. The pupils can translate idiomatically and grammatically almost every passage in the books they have studied, and can parse, and write from dictation.

"*English studies of the Junior Normal Class.*—This class has read the whole of McCulloch's Third Reading Book, some rudimentary lessons in grammar, and the School Dialogues. The pupils have got on, I think, very well. They

understand clearly what they have read, and translate pretty correctly.

" *Political Economy.*—The study of this very important branch was introduced by Máhádeo Govind Shástri, and the pupils had some lectures on the subject from him. After my appointment in his place, I thought it proper to take a somewhat retrospective view, and therefore I embraced in my lectures all the general principles of the science, dwelling particularly on the subjects of production and of foreign trade.

" *History and Grammar.*—The students learn these branches under Vishnu Pant Támhankar, the Head Master of the Vernacular Department. The amount of history they have prepared this session is the last ten chapters of Bál Shástri's British India, and the revision of all the preceding chapters."

Normal department.

60. From the Principal's report on the normal department we quote the following paragraphs :—

" The result of the examination of the normal scholars will be seen in the table appended to the report of Assistant Professor Keru Lakshiman Chhatre.

" The senior mathematical class is taught by Assistant Professor Keru Lakshiman Chhatre, who zealously performs this extra work. The other mathematical class is taught by Vináyak Pant Gokhale, the Assistant Vernacular Master. The senior English class is taught by Assistant Professor Krishná Shástri, whose zeal makes him most willing to do this extra work, and he does it very efficiently. The other English class is taught by Bhau Shástri Theurkar, and at the examination it did him much credit.

" For vernacular reading, history, grammar, &c. the normal students are all in one class, and are taught by

Vishnu Pant Támhankar, the Vernacular Master. Both Vishnu Pant and his assistant Vináyak Pant are diligent in the discharge of their duties.

" I make it a rule to take the normal class myself once or twice a week; at which times my personal Pundit, Parashrám Pant Gorboleh, takes my place in instructing the college division in the vernacular. He also takes the normal class occasionally for vernacular composition and grammar.

" Particular attention has been paid to English in this department in the past session, in accordance with the instructions of the Board, communicated in their reply to my last report. Both classes passed a very satisfactory examination in their English studies. The course of study is given in Krishná Shástri's report above."

61. The Assistant Professor in the normal department makes the following among other remarks :—

" Normal Class.—*Mathematical studies.*—During the preceding session the senior division of this class has gone through plane and spherical trigonometry, but as the deduction of mere analytical expressions is incomplete, where men, as schoolmasters, may have sometimes to do more than merely instruct their boys, I thought it proper to teach them the application of trigonometry to the measurement of heights and distances.

" *Natural Philosophy.*—During the preceding session I delivered lectures to the normal class on optics and the general outlines of astronomy.

" Some of the principles of astronomy that I expounded were so new and amusing to the students that they elicited admiration for a people who cultivate this science for its own sake, and who have to make no religious use of it in any shape.

"*Chemistry.*—For the last two months the normal class had lectures on the general outlines of chemistry."

Sanskrit department.

62. From Major Candy's report on the Sanskrit department we quote the following paragraphs:—

"My sentiments on the importance of preserving the Sanskrit department in an efficient state have been so often submitted to the Board, that I will not be wearisome by repeating them here.

"Since my last report I have begun to require the assistance of the professors of this department in instructing in Sanskrit students who are not Brahmins. From the alarm which was exhibited at my first requisition, I was apprehensive that I should not accomplish my object without having recourse to measures which I wished to avoid: I succeeded, however, in allaying the fear which had been excited, and though at present I have only partially succeeded, I hope to be able to report full success at the close of the present session. Excepting one or two, I do not think that the professors feel any personal repugnance to do what I have required. They would willingly go to the houses of Europeans, and teach them Sanskrit for remuneration; but they fear being held up to obloquy as innovators on established rules, if not betrayers of their faith, if they teach Sanskrit *in the college* to any but Brahmins. I think that much allowance is to be made for them, and I have felt it to be my duty to deal very patiently and gently with them."

Department of translation.

63. We extract the following paragraphs from the Principal's report on the department of translation:—

"In consequence of Krishná Shástri Chiplunkar's having been appointed Acting Assistant Professor of Vernacular

Literature, there have been but three Translation Exhibitioners in the past session. These have been employed, partly in translating, and partly in teaching. All three have had a good deal of sickness in the course of the session.

" At the end of November last there was an examination held of candidates for the situation of Examiner and Reviser of books under the Dakshiná Prize Committee, at which all three of the Exhibitioners appeared as competitors, with four other candidates. The Exhibitioners came out at the top of the list, and though the appointment has not yet been announced, it is probable that the senior Exhibitioner, Náráyan Shástri Apte, will get the situation. I shall be glad of his promotion, for though it will take him from the college, it will not take him from the department of labour for which he has been trained.

" I have not so much to mention in the way of personal translation as I should like. In the months of June, July, August and September, I concluded the description of Asiatic Russia, which I stated in my last report had been commenced; and very nearly finished a description of Asiatic Turkey. In the beginning of October I was under the necessity of devoting some time to the examination of books submitted to the Dakshiná Prize Committee, of which I am a working member; and about the 20th of that month the departure of the Professor of English Literature made it incumbent on me to take the charge of his classes on myself. With my own classes in the early morning, and the classes of literature in the middle of the day, I was utterly unable to do any translation. I had charge of the classes of literature in the college division till about the end of November. The month of December, which closed the session, was given to the annual examination."

64. Major Candy says of the branch school, which we mentioned in our last report as having been established in the Sadar Bazaar of the Poona Cantonments :—" This school continues under the care of Sakhárám Bálkrishná as head master, and is in an efficient and satisfactory state. The head master is evidently very attentive to his duties. The number on the roll at the date of the last report was 82. The number at the close of last session was also 82. These are all paying scholars." The Principal then gives a full report of the state of the school, but on this we need not enlarge.

Branch school.

65. The following table will show the number of stipendiary, paying, and free students in the College, on the 31st December last, exclusive of 82 boys in the branch school:—

Number of students.

No.	Departments.	Stipendiary.	Paying.	Free Students	Total number in each Department.
1.	Sanskrit department ...	10	10	112	132
2.	English ditto ...	35	128	179	342
3.	Normal ditto ...	20	...	3	23
	Total...	65	138	294	497

MOFUSSIL ENGLISH SCHOOLS.

66. The English schools in the Mofussil are eight in number, viz. at Surat, Rutnagiri, Ahmedabad, Ahmednuggur, Dharwar, Broach, Tanna, and Sattara; and we have arranged our reports of these schools according to the successive dates of their establishment, commencing with that at Surat, which is now the oldest we have. At the close of March last they were attended by 879 students.

SURAT ENGLISH SCHOOL.

Established 1842.

Master	Mr. JAMES GRAHAM.
2nd Master	Mr. T. B. CURTIS.
Senior Assistant Master ..	MOTIRÁM NARBHAIRÁM.

Six other Assistant Masters.

Pupils ..... 341.

67. No change in the management of this school has taken place since the date of our last report. At that time there were 331 pupils, being a larger number than at any previous period. It will be seen, however, that that number, large as it was, has still further increased.

68. The school was carefully examined by Mr. Harkness in March last, but as Mr. Graham at the time was absent on leave, the school was then in charge of Mr. Curtis, the Second Master. The report by Mr. Harkness

shows that the School maintains its high character. He found 347 pupils, divided into nine classes for language and general knowledge, and into ten for arithmetic and mathematics. The classes were called up in succession, beginning at the lowest. A portion of the work done by each class during the year was selected. Upon this every boy was examined for a longer or shorter period.

69. The 1st or highest class contains forty pupils. Their studies in English had been the whole of McCulloch's Course of Reading, portions of Murray's India and Goldsmith's England, and geography, with the use of the terrestrial globe. With the exception of a passage in poetry, in which the examination was less satisfactory than could have been wished, Mr. Harkness was much pleased with the accuracy and intelligence of their answers on all subjects. In history, particularly that of India, so far as they had read, their information was minute and correct. In mathematics the studies of the first division had comprised analytical geometry—line, circle, and ellipse; spherical trigonometry, with its application to astronomical problems; logarithms, and algebra. The studies of the second division comprised six books of Euclid, with exercises, algebra as far as quadratic equations, and plane trigonometry, with its application to heights and distances. The appearance of both divisions was said to be "highly creditable":—"Nearly all the answers in analytical geometry were mathematically correct, but I was sorry to see some of the best of them disfigured by bad writing and misspelling. In spherical trigonometry the questions proposed were mostly of a practical kind, and I was glad to observe that this important part of the subject had received due attention."

70. The 2nd class contains 37 pupils. Their studies in

English had been portions of McCulloch's Course of Reading, Murray's India, Goldsmith's England, geography, and translation into English. The senior boys read well and acquitted themselves satisfactorily, but they were much in advance of the remainder of the class. They also showed themselves familiar with the portion of the history of India which was selected. In mathematics the studies had comprised six books of Euclid, with exercises on four,-- algebra as far as quadratic equations, and plane trigonometry. The result of the examination was, upon the whole, satisfactory.

71. The 3rd class passed a fair examination in quadratic equations, and the 4th in the simple rules of algebra. The other classes were at different stages in arithmetic, from decimal fractions, compound proportion, and interest, down to simple multiplication. The cyphering was not particularly neat, and the working in some instances was rather slow, but a fair proportion in all brought out the right answers.

72. In his general remarks on the school, Mr. Harkness says:—"It will be observed that the number of pupils is greater than it has been at any former period. In pure mathematics the highest class has not advanced so far as the corresponding class at the previous examination had done. But, what is perhaps of equal importance, they have been well grounded in what they have gone over, and have been taught its practical application. The result of the examination of this class does great credit both to Mr. Graham, and to Parvatishankar, by whom it has been taught during his absence. Mr. Curtis, too, merits commendation, not only for the appearance made by his own classes, but for the general managment of the school during the absence of the head master."

Rutnagiri English School.

Established 1845.

Master ..... Rámchandra Dinánáthji.

Pupils..... 46.

73. No change has taken place in the management of this school since 1847, when the present master was appointed. The school was carefully examined in January by Mr. Baker, Superintendent of Schools in the 3rd Division, and the general result was creditable both to the master and pupils. The school is divided into four classes, both for mathematics and for English. The studies of the year in the former comprised arithmetic, algebra, and geometry; in the latter grammar, history, geography, and translation. In our last report we noticed that the result of the previous examination in geography and translation from Maráthi into Engish was not satisfactory. We are, therefore, happy in being able to state that there is some improvement. We still desire, however, to see both these subjects more closely and more generally attended to. Two of the most talented pupils of the senior class, Janárdhan Hari and Bálaji Káshináth, answered all questions in history and grammar with great readiness and accuracy, and performed their exercises in translation from Maráthi into English very correctly. For the purpose of pursuing their studies they came to Bombay in February, and entered the candidate class for scholarships, and we trust their abilities and perseverance will enable them to obtain these honors, and to do the same credit to the school which was reflected on it by Vishwanáth Náráyan.

Ahmedabad English School.

Established 1846.

Master..... Bhogilál Pranwulubdás.
Assistant Master..... Mád'eorao Narsing.
Pupils ..... 125.

74. No change has taken place in the master of this school since it was first established. The number of pupils remains nearly stationary. In our last report the number mentioned was 121. At the end of March it was 125. The school was carefully examined by Mr. Graham, Superintendent of Schools in the 2nd Division, in January last, and we have good reason for regarding the present state of the school as satisfactory. It is divided into eight classes, the 1st or highest containing twenty-five boys. The English studies of this class during the year comprised portions of McCulloch's Course of Reading, Clift's Political Economy, Murray's India, Green's Phrases, introductory problems on the terrestrial globe, grammar, with Latin and Greek etymologies, and translation from Gujeráthi into English. The mathematical studies of the class were the six books of Euclid, with deductions by Chambers, and plane trigonometry. The result of the examination on all these subjects was very creditable, more particularly in mathematics, in which the answering of the best pupil reached as high as 80 per cent.

75. We have much pleasure in stating that Motilál Jivandás, whom we alluded to in our last report as a student of great promise who had maintained the first place at the annual examination, both in English and science, left Ahmedabad for Bombay, with the view of prosecuting his

studies at the Elphinstone Institution, and won a West scholarship at the examination in December last.

76. Mr. Graham says, that on the public day for the distribution of prizes, " we had present the Revenue Commissioner, Mr. Fawcett, the Rev. Mr. Mitford, Chaplain, Mr. Summers, Secretary to the School Committee, Rao Bahadoor Maganbhái Karamchand, and a host of other respectable Natives. When Mr. Fawcett had distributed the prizes to the successful pupils, Mr. Maganbhái's new globes were presented to the school, and the conditions of the purchase explained. The Revenue Commissioner seemed much pleased with the handsomeness of the present; and the liberality with which Mr. Maganbhái aids in the diffusion of public education generally was warmly acknowledged, as well by the Native gentry themselves, as by the Europeans who were present on this occasion."

AHMEDNUGGUR ENGLISH SCHOOL.

Established 1848.

Master ..... Mr. A. J. DASILVA.

Pupils..... 74.

77. In previous reports of this school we had occasion to allude to the small number of students, and to the very slight interest taken in it by the inhabitants of Ahmednuggur, notwithstanding the exertions of its experienced master and the kind assistance of the Local Committee, more particularly of Mr. Woodcock, the President, who has for a long time warmly exerted himself in behalf of the school. We trust however, that the inhabitants are now beginning to appreciate the advantages of having an English school within their walls. There is certainly one

proof of this in the increase of the number of pupils. In our last report we stated the number to be 56. At the end of March there were 74.

78. No change has taken place in the management of the school since it was first established. It was submitted to a careful examination in January last by the Superintendent of schools in the 1st Division, and the result was highly creditable to the master, who evidently exerts himself to sustain the character of the school. It is divided into six classes for English studies, and into eight for arithmetic and mathematics. The studies of the 1st or senior class in English comprise McCulloch's Course of Reading, Chambers' History of the British Empire, Taylor's Ancient History, Clift's Elements of Political Economy, geography, and composition. The reading was fluent and intelligent, and the pronunciation and accent extremely good. The knowledge of grammar, geography, and history was correct and satisfactory. In mathematics the studies of the 1st class were algebra, as far as quadratic equations, and the first four books of Euclid. Their knowledge of these subjects was creditable, and the pupils, generally, displayed much readiness and accuracy in their replies to nearly all the questions put to them on the different subjects taught in the school. The public examination was held in the Adálut, and was attended by many friends of education, both European and Native.

DHARWAR ENGLISH SCHOOL.

Established 1848.

Acting Master ..... RAGHUNÁTH JAGONÁTH.

Pupils..... 29.

79. In our last report we expressed some doubt of the

inhabitants of Dharwar evincing sufficient interest in the well-doing of the school, and we stated that if a satisfactory change did not take place in certain respects, it would become a question with us how far we should be justified in keeping it open. We subsequently considered it necessary to express our dissatisfaction to the inhabitants, and to call upon them to prove the sincerity of their desire for the continuance of the school, by providing a portion of the master's salary. The result was an engagement on the part of the inhabitants to provide fifty rupees a month for this purpose, and we were in hopes that the condition of the school would in consequence rapidly improve; such, however, is not the case at present. The school was carefully examined in February by Mr. Baker, the Superintendent, and he reported that the studies of the higher class had in many points receded since the previous examination. This, however, was partly owing to the circumstance of four of the most advanced students having left Dharwar for the purpose of prosecuting their studies in the Poona College. As the inhabitants now defray a considerable part of the expense of the school, we think they are fairly entitled to consideration, and we therefore propose to give it a further trial.

BROACH ENGLISH SCHOOL.

Established 1849.

Master ..... KÁVAZJI EDALJI.

Pupils ..... 95.

80. No change has taken place in the master of this school since it was first established. The school was carefully examined by Mr. Graham, the Superintendent, in

December last, and the result was tolerably satisfactory in all subjects. The school, as before, is divided into five classes, the first or highest containing twenty boys, the fifth or lowest seven. The English studies of the first class comprised portions of McCulloch's Course of Reading, Murray's History of India, Wilson's Universal History, Green's Phrases, and translations into and from Gujaráthi. The mathematical studies of the same class were the fourth and sixth books of Euclid, with the definitions of the fifth, and plane trigonometry, with its application to heights and distances.

81. In our last report we mentioned that Morobá Cánobá, until lately the Sudder Ameen of Branch, a zealous and generous supporter of Native improvement, had offered a prize of ten rupees for the best translation from Gujaráthi into English, but that as none of the translations were considered sufficiently correct to entitle either of the writers to the prize, it was considered desirable that it should remain open for competition the following year. The subject was decided at the late examination. Mr. Graham states "that Mr. Gibbs, the Acting Senior Assistant Judge, who kindly favored us with his assistance, this time again selected from a Gujaráthi work a passage of somewhat more than ordinary difficulty, which, so far as could be ascertained, none of the competitors had ever seen before. Several of their translations, but especially the one that obtained the prize, were pronounced, both by Mr. Gibbs and the Civil Surgeon, Dr. Bean, who was also present last time, highly meritorious, being free from almost all the objections to which their similar attempts last year were liable. The prize was awarded to Ghelábhái, one of the paid monitors." Mr. Graham states further:—"Before concluding these remarks, I have to return thanks to Mr.

Gibbs for the very warm interest which he continues to take in the welfare of the pupils, of which his personal visits to, and private examinations of, the classes, as well as the valuable prizes which he provides for the annual exhibitions, afford the most convincing proof. My thanks are also due to Mr. Landon, the Sudder Ameen Morobá Cánobá, and Nowroji Beramji the Deputy Collector, each of whom with equal disinterestedness furnished extra prizes varying in value from 10 rupees to 20 rupees. Altogether the value of the extra prizes distributed in the first class this year amounted to 60 rupees. The beneficial influence which patronage of this kind exercises on the progress of the pupils must be great, in consequence of the high degree of emulation which it creates and sustains. Hitherto these prizes have been awarded to the first, second, third, &c. boys of highest general attainments in the school, and have of course always been obtained by the men of the 1st class. As this mode of distribution, however, has no tendency, or almost none, to cherish the principle of competition in the junior classes, Mr. Gibbs says that on future occasions such a distribution of the extra prizes as will secure this advantage must be made, as the junior require at least as much encouragement as the senior pupils." To each of the gentlemen here named we beg to offer our warm acknowledgments fort heir kind exertions in behalf of the school.

TANNA ENGLISH SCHOOL.

Established 1851.

Master ..... JAHÁNGIR HORMASJI.

Pupils..... 94.

82. In our last report we mentioned the circumstances

which led to the establishment of this school. It is almost entirely self-supporting. The salary of the master is defrayed by the inhabitants. Beyond contributing towards the erection of the school-house, and providing school furniture at starting, there has been no call on the Government annual grant, excepting for the payment of slight incidental expenses. The school remains under the management of the master who was appointed to the charge on its establishment in 1851. In November last it was subjected to a very careful and minute examination by Mr. Baker, the Superintendent of Schools in the 3rd Division. The result was not altogether so satisfactory as we could have wished. The studies are divided into two courses, the "English and Vernacular," and the "Mathematical." In the former there are six classes; in the latter five. In the English and vernacular course are being taught reading, writing, grammar, geography, history, and translation; and in the mathematical arithmetic, algebra, and geometry. The reading throughout the four first classes was good, and the matter for the most part correctly understood, the first and second classes giving explanations in English, the rest in their vernacular; but the elements of grammar and geography had been hurried over with imperfect attention, and the translations from Maráthi into English were in consequence defective. The examination in the mathematical course did not give more satisfaction. There was the same proof of too much hurrying on, and neglect of attention to rudiments. In algebra, for instance, although two boys could work problems of an easy character in simple equations, only one had a good knowledge of division; and in arithmetic not one boy in the school had any idea of marking off the decimal places in the quotient of a sum in division of decimals. The

master had evidently been striving to push his classes forward, but without due regard to the necessity of grounding them well on a sound elementary basis. He is well spoken of, however, by the inhabitants, as a very industrious teacher, and the large muster of his school speaks much in his favor. We have adopted such measures as seemed to be required for correcting what was wrong, and we hope to be able, in our next report, to speak more favorably of the state of the school.

83. Throughout his examination the Superintendent was greatly assisted by Mr. Cameron, then the Assistant Judge, who not only presided at the public examination, but was also present and assisted at the private inspection; and we beg thus publicly to express our grateful acknowledgments to this gentleman for the kind aid he has afforded to us, both lately at Tanna, and formerly at Ahmednuggur.

SATTARA ENGLISH SCHOOL.

Established 1852.

Master ..... VISHNU MORESHWAR BHIRE.

Pupils..... 75.

84. Having in a former part of our report mentioned the circumstances which led to the establishment of this school, we have but little to add in this place. The school was placed in December in the hands of Vishnu Moreshwar Bhire, its present master. No examination has since been made by the Superintendent, but we have reason to believe it is going on well; and we hope to be able in our next report to give a satisfactory account of its working.

GOVERNMENT VERNACULAR SCHOOLS AT THE PRESIDENCY.

85. These schools are seven in number, viz. four Maráthi, two Gujaráthi, and one Hindustáni. The total number of pupils is 581, being an increase of forty during the year. Of this number 340 are pupils in the Maráthi schools, 216 in the Gujaráthi, and 25 in the Hindustáni. These schools remain under the superintendence of Mr. Harkness, by whom they were very carefully examined in November last. With the exception of the Hindustáni, and one small Maráthi school, they are in a very satisfactory state.

86. We stated in our last report that Mr. Harkness was of opinion that these schools ought to be placed on a different footing altogether, and that the best mode of doing this would be to incorporate them with the branch English schools, each of which would then consist of an English and vernacular department. These it was proposed to place under different teachers, opportunity being afforded to the boys to begin the study of English after attaining the requisite proficiency in their own language, and to devote to it a certain portion of each day, at the same time that they are gaining some knowledge of arithmetic, geography, and history, through the medium of their vernacular. Several obstacles were met with, however, in carrying out this plan—some connected with the teachers, and others with the difficulty of procuring appropriate school accommodation in the required situation. It will be recollected that we have two branch English schools, one in the Fort, and the other at Mumbadevi. Neither of these buildings, however, was sufficiently large to allow

of the admission of the requisite number of pupils from the vernacular schools, so as to enable us to carry out the object in view. We had, therefore, to look elsewhere for better accommodation. In the Fort there was some difficulty in procuring a house, at a moderate rent, at all calculated for our purpose, but at last we obtained one, containing six well-ventilated rooms, and two other small ones, capable, altogether, of accommodating 250 pupils. In the neighbourhood of Mumbadevi, however, we have hitherto been unable to procure a house of the requisite size. We have, nevertheless, made a first step towards carrying out our views, and we hope before long to be able to complete our arrangements.

87. Mr. Harkness was of opinion, that on making the contemplated change, no more pupils should be admitted into the vernacular department on the present system, viz. without any previous education. He thought it desirable that no boy should be admitted, except after examination. The standard of qualification proposed was, 1*st*, ability to read his vernacular language with tolerable fluency, and to write a legible hand ; 2*ndly*, a knowledge of arithmetic, as far as the multiplication table ; and 3*rdly*, a knowledge of the tables of coins, weights, and measures used in Bombay. These examinations to be held quarterly in the first weeks of January, April, July, and October. We considered the proposal most sound, feeling assured that the slight amount of preparatory instruction, required for admission, might be safely left to private enterprise. We ascertained, however, that so great and sudden a change would be very distasteful to the bulk of the Native community, and, in deference to their wishes and feelings, we limited our sanction to the extent of making the proposed standard applicable as a test for admission into the verna-

cular department of the branch English schools. This renders it necessary for us still to maintain a central Maráthi and Gujaráthi school, where boys may have an opportunity of acquiring the amount of knowledge, requisite for enabling them to pass the examination, previous to their transfer to the branch schools.

88. We have long been of opinion, however, that the time is approaching when the aid of Government might safely be dispensed with in imparting what is strictly called primary instruction at the Presidency, for so great has become the eagerness for admission into English schools that we think the amount of knowledge of the vernacular, required by our rules as a test for admission into these schools, might ere long be safely left in the hands of private teachers. We have before stated that there exists in Bombay scarcely any genuine demand for education in our vernacular schools. These schools find pupils merely because we insist on a certain proficiency in the vernaculars as a qualification for admission into the Elphinstone Institution. We have only to relax a little on this point to shut up our vernacular schools altogether, and it would be a most popular measure to adopt, for both Hindus and Parsis submit with great reluctance to this previous vernacular teaching. The great demand at the Presidency is for education in English. Experience, however, shows that a knowledge of the vernacular is of essential importance, even to those who desire to study English solely; for it is observed that the best students in English, generally speaking, are those who have made the greatest proficiency in their own language. With reference to its great importance, we may mention that Major Candy, Principal of the Poona College,—a great authority on these matters,—lately expressed his hope "that particular attention to the vernacular would always be a

distinctive mark of the college." He admits, however, that there is much difficulty in convincing students who have neglected the study of their vernacular, of the importance of attending to it. Major Candy also makes the following important remark, bearing on the subject of vernacular education: he says that "with respect to Maráthi composition, those students who come from the Sanskrit department to the English are, generally speaking, much superior to those who do not know Sanskrit." Mr. Harkness, too, in his late report of the Elphinstone Institution, bears similar testimony to the good effects of teaching the rudiments of Sanskrit. In his remarks on one of the classes, he states that the Maráthi portion of the class had been thus taught, and that the good effects of this instruction were becoming evident in the orthography and style of Maráthi writing.

VERNACULAR SCHOOLS IN THE DISTRICTS.

89. These schools are arranged, as before, in three divisions. The first division comprises the schools in the Collectorates of Poona, Ahmednuggur, Khandeish, and Sholapoor, and in the districts of Sattara,—these last having recently been added to the division. The second includes the schools in the Collectorates of Surat, Broach, Ahmedabad, and Kaira. The third division those in the Collectorates of Tanna, Rutnagiri, Belgaum, and Dharwar. We have thrown into a tabular form in the appendix a return of the number of these schools in each division—when and where established—estimated population of the town or village—number of pupils, both as borne on the register, and as actually present at the examination—name, caste,

and salary of the master—length of his service—date of examination—and brief remarks on the state of each school.

First Division.

90. In our last report we mentioned that we had recently appointed Máhádeo Govind Shástri Superintendent of the Schools in this division; and during the twelvemonth which has elapsed, he has been actively employed in examining nearly every school it contains, in addition to making the special tour through the Sattara province, which we have already alluded to. He has recently sent us his annual report, drawn up with much care, and giving a full detail of the state of every school he examined. There were only five in the division which he was unable to inspect, and this was owing to his having been occupied a long time in the Sattara districts.

91. The general result of the examinations was decidedly satisfactory, and we feel confident that they will become still more so in future years, for in consequence of the measures adopted for removing the worn-out and most incompetent of the masters,—alluded to in an earlier part of our report,—we have been able to supply some of their places with younger and well-qualified teachers. We have thus appointed new masters to the schools Nos. 1 and 3 at Ahmednuggur, No. 1 at Poona, and at Indapur; and in consequence of other changes we have been able to provide the schools at Malligaum and Jooneer with masters who were educated in the normal class, and were subsequently vernacular teachers in the Elphinstone Institution. A teacher of the same description was also sent to assist in

the large school at Nassick. As the masters of the schools Nos. 1 and 2 at Poona retired on gratuities, we took advantage of the opportunity to unite these schools into one, which we placed in charge of Keshava Shivarám, one of our most able men. The number of schools in Poona is thus reduced from four to three.

92. The best schools in the division are those at Poona, Jooneer and Kadus, in the Poona Collectorate; at Nassick, Akoleh, Chakan, Sumgamnair (Maráthi), and Poontambee, in the Ahmednuggur Collectorate; and at Dhulia and Malligaum in the Khandeish Collectorate. The school at Nassick is the largest in the division, containing 207 boys. The Superintendent says of it:—"The examination of this school afforded me entire satisfaction, both on account of the creditable progress made by the boys of the different classes, and on account of their general alertness. In reading and writing, both Modi and Balbodh, as well as grammar, geography, and small history of the Maráthas, they exhibited a degree of proficiency which was highly creditable both to boys and the masters. I am very happy to be able to state here, that the first two classes, which are under the tuition of the zealous, industrious, and well-educated assistant Lakshuman Narshing Joshi, whom the Board were so good as to transfer to this school from the Elphinstone Institution, passed a very searching examination in algebra, and showed much intelligence in geometry." The school at Jooneer contains 121 boys, and is in a very efficient state. The Superintendent says:—"It is very gratifying to state that this school has considerably improved, both in point of number and progress, in the hands of the present master, Naro Bálcrishná, whom the Board were so good as to transfer to this place from the Elphinstone Institution in the month

of July last. When Náro Pant took charge of this school, the number of boys on the roll was 50, which has now increased to 121. This circumstance reflects no small degree of credit upon his tact and exertions. As the school was left in a bad state by its former master, Náro Pant was obliged to teach the boys arithmetic and other higher branches from the beginning, and consequently they were not far advanced in their studies. The reading and explanation of the first three classes were extremely good, and the answers returned by the boys of the first class in geography, grammar, arithmetic, and history, were both ready and accurate, and evidently showed that the master had devoted himself to the improvement of his scholars with diligence and attention. Besides the above mentioned studies, Náro Pant has taught the 1st class boys McCulloch's 1st Reading, and a few pages of the 2nd Reading, which they read well, and translated into Maráthi correctly."

93. Of the school at Chakan, the Superintendent says:—"The flourishing condition of this school afforded me entire satisfaction. All the classes, from the lowest to the highest, were arranged in a proper manner, and were intelligently taught in all the subjects. The reading and explanation of what was read were very fair, and the appearance made by the boys of the first two classes in geography, grammar, history, and arithmetic, was highly respectable. This state of things is mainly attributable to the praiseworthy exertions of the present master, Báláji Máhádeo, one of the students of the late normal class, who was removed from Loni to this school after the dismissal of its former master, on account of his inability to conduct the school efficiently." The school at Dhulia is thus spoken of:—"The results of the examination passed by the boys

of the different classes of this school were highly satisfactory, and did great credit to the praiseworthy exertions of the head master and his assistant. The reading and writing, both Modi and Balbodh, and explanation of what was read, were extremely good throughout the school. The answers returned by the first two classes to the questions in geometry, algebra, history, and natural philosophy, were generally correct, and showed that they possessed a full and comprehensive knowledge of those subjects. Their answers to the questions in grammar and geography were indeed beyond praise, and clearly evinced the attention and intelligence of the head master. The attainments of the 1st class boys in trigonometry, taught by the assistant, one of the students of the late normal class, were tested by two examples, which they all answered with great credit."

94. With reference to his general course of proceeding in examining a school, the Superintendent says :—" I may mention here that after one, two, or more private examinations of each school, according to circumstances, for the purpose of ascertaining the progress of the scholars, a public examination was held in the Katchari, or Adálut, of the place, and at which the prizes were delivered to the best scholars by some gentleman of the Civil Service, who was so kind as to preside on the occasion, or by the Mamletdar, Munsiff, or other Native authority of the district. I also availed myself of this opportunity of explaining the advantages of the superior education given in our schools to the inhabitants of the different places, and particularly of making the parents fully understand the serious responsibility laid upon them by Providence of rightly forming the character of their children, by giving them a good education."

95. In the course of some remarks on the circumstances which are calculated to impede or favor the progress

of our schools, he says:— "The Board are fully aware that the motives which induce the different classes of the Native community to send their children to our schools are as various as their occupations and feelings. The Brahmin boys, who form a large portion of the pupils of our schools, come hither with a view to qualify themselves for Government employ, which they look to as the only means of livelihood. The Kunbis, though hitherto unaccustomed to education, have begun to feel that a knowledge of reading and writing will enable them to carry on their business with more ease and facility. The traders and shopkeepers send their children to our schools to teach them how to keep accounts. These classes, however, seldom sacrifice their immediate interest to the distant benefits of education, and not only remove their children from school as soon as their object is gained, but keep them away for weeks and months at particular seasons, such as on market days, and during the time of sowing and reaping, &c. To this cause may be attributed the inferior state of our schools located in these places, the inhabitants of which are chiefly composed of Kunbis, traders, and shopkeepers. From the above statement it will appear that none enter into our schools with the view of gaining knowledge for its own sake. It is not until much advancement has been made in the higher branches of education that this laudable desire enters their breasts. Up to this time the higher branches of our school education, such as geography, history, mathematics, and geometry, were not recognized among the qualifications deemed necessary for the Government employ. This circumstance tended to keep away a greater portion of our pupils, particularly those who had any prospect of getting into the service of Government, from the study of those branches, and their example not only made others indiffer-

ent to a regular education, but induced them to infer its utter uselessness in life, and to conclude that the schools are supported by Government as a mere act of charity. This evil, I am happy to state, is now removed, by Government allowing the higher branches to be reckoned among the qualifications necessary for obtaining Government employ, which, being the sole object of desire with the majority of our pupils, they are prosecuting their studies in those branches with more taste and zeal. I feel confident that when the study of these branches has imparted to our pupils those principles of knowledge which are powerful enough to solve every question from the commonest proportion to the most intricate problems that are set down as puzzles by the native community, they will feel great gratification in their studies, and will begin to love knowledge for its own sake. This state of things, it is very gratifying to say, is to be found to some extent in such of our schools as are placed under the superintendence of our well-educated, well-informed, active, energetic, and prudent masters. The boys under the tuition of Keshava Shivarám, Wásudeo Bhikáji, Laxuman Narsing Joshi, Bálcrishná Trimbak, and others, are prosecuting their studies, not only with the view of qualifying themselves for Government employ, but of being useful to society. The boys under Keshava Shivarám, for instance, at their leisure hours, attend the School of Industry lately established at Poona by Mr. Jagonáthji, assisted by Keshava Shivarám and other educated young men, under the patronage of the Poona Society for the Diffusion of Useful Knowledge, and learn there carpenters', joiners', turners' work, &c., in spite of the remonstrances of their parents and guardians and the abuse of their friends, who consider that study below their dignity, and quite contrary to the old customs."

96. With regard to the general attainments of the 1st and 2nd classes in our best schools, such as those at Poona, Ahmednuggur, Nassick, Dhulia, Poontambe, Jooneer, Kadus, Akoleh, Chakan, and Sangamnair, the Superintendent says they can read intelligently books on general information. "In algebra they have advanced as far as quadratic equations, and thoroughly know the first forty propositions of Hutton's Geometry. Some of them have advanced as far as the 94th proposition in geometry, and correctly work examples in plane trigonometry. The boys in the Dhulia school returned very accurate and pleasing answers to the questions in natural philosophy." He also says :—"The masters of our best schools make a very good use of the small valuable pamphlets called Dnyanprásárak, which the Board have been so good as to supply all our schools with. These books, I am very happy to state, have worked a great and wonderful change in the feelings of the scholars, and have supplied them with a variety of useful information on different topics."

97. The number of schools in this division at the end of March was 68, and the total number of boys in attendance 3,749. Thus, notwithstanding the closing of six schools during the previous year, there is no falling off in the number of pupils.

Second Division.

98. The schools in this division continue under the able superintendence of Mr. Graham, who has now had ample opportunities of becoming intimately acquainted with their character and condition, as he was appointed Superintendent of this division in June 1850. During November, December, and January, he was engaged in making a tour

of inspection, and he has forwarded a minute report of the state of each school, as ascertained from close personal examination. The general result was decidedly satisfactory. The best schools in the division are those at Surat, Nos. 1 and 3; at Ahmedabad, Nos. 1, 3, and 4, and the one at Nariad. The largest in the division is No. 1 at Ahmedabad, containing 241 pupils. The one at Nariad also contains a very large number—222.

99. In the course of his annual report, Mr. Graham says that "the efforts that have been made during the past year in behalf of these schools have been, in many places, attended with favourable results. In Nos. 1, 3, and 4 schools, Ahmedabad, the pupils have increased from 211 to 241, from 70 to 100, and from 132 to 157, respectively. The school at Matur has also increased from 35 to 60, and in the Nariad school the present numbers are so high as 222, giving an increase of 42 pupils on the year. Many of the other schools have also received considerable additions to their number, viz. Dholka, Dholera, &c.; and at Bhaonagar, where a new school was opened about four or five months ago, the number of pupils is already 190, and is likely to become still greater. The table appended to these remarks shows a total increase on the year in the vernacular schools of this division of 321. But increase of numbers is not the only improvement I am able to speak of. The standard of the teaching has also been raised a little in some of the schools. Ancient history has for the first time, so far as I can learn from the records of the Superintendent's Office, been introduced. The first class boys of Lálbhai Ruprám's school, Ahmedabad, answered, in a very satisfactory manner, a great number of questions on the rise and fall of the ancient Persian Empire. Lálbhái himself is a very industrious and self-

improving man, and attends exclusively to his own business. He also enjoys the privilege of being able to read, for increased information, works on history and science in the English language, and the knowledge which he derives from these sources is freely shared with his pupils. As a text book on ancient history, the class had used a small abridgement complied by Mrs. Wilson in the Maráthi language.... At Dhanduka, mathematics continue to be the favourite study both with master and pupils ; of the latter some display wonderful ingenuity in the application of algebra to geometrical questions, and in many cases are able to bring out correct results. For other gratifying indications of improvement in the system of teaching, I beg to refer to the tables of results of examinations of schools at Rander, Mehmadabad, Surat No. 4, Matur, and Ahmod. In all these places the character of the teaching has improved, while the previous high characters of several other schools, such as Surat No. 3, Ahmedabad No. 1, &c., have been well maintained. It must, however, be admitted that in many of the schools nothing was found that could be considered deserving of special commendation, excepting, perhaps, that a little more attention has generally been paid to the junior classes; but, with one or two exceptions, I do not believe that it could be justly said of any master that he had not been doing his best for the benefit of his pupils, and though in too many instances their bests are but poor affairs, they are the most that can rationally be expected from any class of men."

100. In our last report we mentioned that Rao Bahádur Maganbhái Karramchand, a wealthy merchant of Ahmedabad, had appropriated the sum of Rupees 20,000 for the purpose of founding two Native female schools in that city, and that, on this gentleman's expressed wish, the

schools were placed under the superintendence provided for this division. They were examined in January by Mr. Graham, who says:—" In the two schools at Ahmedabad, supported by Rao Bahádur Maganbhái Karramchand, there are now 154 girls, and of the 120 pupils who attend the Vernacular Society's school 40 are girls, making altogether a total of 194 girls at present receiving instruction in the public schools of that city. The class books used in these schools are the same as in the male schools, with the exception of the mathematics, for which the pupils are not yet ripe enough; otherwise, Parshotam, master of the No. 1 school, who has some slight predilection for these studies, would probably have had these introduced also. Some of the girls of the highest classes, particularly in the No. 1 school, read Æsop Niti, Balmitra, and history very fairly, and answered several questions on history, grammar, and geography. Their writing from dictation was remarkable both for correct spelling and well-formed letters. They have also made some progress in the elements of arithmetic; and, by the general aptness which they display in learning this subject, seem to be dispelling from the minds of the old Natives their absurd notions about boys alone being able to learn the science of computation. Singing also forms a part of their daily exercises, but of their progress in this department I have nothing to say except that, on the day of the exhibition, the music evidently possessed a greater charm for many of the spectators than any other part of the business. None of the European residents were present at these examinations; some of those whom I have seen there on a former occasion were sick, and others were absent on duty. The steady advocates of female education among the Native population of Ahmedabad are few, and the continued prosperity of these schools must in a great

measure depend on the amount of attention paid to them by the influential and permanent European residents of the place."

101. We also mentioned in our last report that Durgárám Manchárám had been endeavouring to form a female school at Surat, but that he had not been able to enlist much Native co-operation. The following remarks by Mr. Graham will show that Ahmedabad is far in advance of Surat in female education:—"The female school in Surat, to which I alluded in my last report as having been got up by the exertions of Durgárám Manchárám, and supported by the small monthly subscription of a few friends, is still in existence, and numbers at present about 35 pupils. A public examination of this school was held when I was out in the districts, at which I understand the Judge Mr. Frere, the Reverend Mr. and Mrs. Montgomery, Mr. Curtis, Meer Jaffar Ali Khan, and the Bakshi were present. A few of the girls in the first class read some passages from Balmitra, wrote from dictation, and sung a few verses of their school songs, after which, *inams* of different values were distributed, and the meeting separated. The real object of the meeting, however, which was to ascertain the best means to be adopted for raising funds sufficient to establish the school on a firm basis, was frustrated, in consequence of the total absence (though special invitations had been received by all) of the Hindu and Parsi gentry, as well as the educated portion of the community who hold offices of trust in connection with the Adálut and Collector's establishment. Many of the respectable and educated inhabitants of Surat are favorably disposed towards female education, and therefore the result of the meeting merely furnished a proof of the truth of an observation contained in my last report, viz. that the Natives were gener-

ally unwilling to co-operate with Durgárám in this undertaking. I have just now been informed that Mr. Frere, shortly after the day on which the exhibition was held, kindly forwarded a donation of forty-five rupees to aid in supporting this school. In some of the village schools are small classes of girls, varying in number from two to seven, some of whom read and explain passages from the juvenile class books tolerably well."

102. In our last report we mentioned that we had closed the school at Nevase, in the Ahmednuggur Collectorate. It was not in a satisfactory state, and the town also contained three indigenous schools, as well as one established by the American missionaries. We have during the year carried out the same principle in this division at Gogo. The school in that town was one of the least successful in Gujarát, and as Gogo contains two missionary schools, we considered it unnecessary to expend our resources on a place thus efficiently provided for. We therefore closed it, and opened a new school instead at Hansote, in the Broach Collectorate, which we placed in charge of Umedrám Itchárám, who, after being trained in the normal class at the Presidency, served as a vernacular teacher for some time in the Elphinstone Institution.

103. We have also closed the school at Kutargaom, in the Surat Collectorate. It was in an inefficient state, little cared for by the inhabitants, and contained only 31 boys. Moreover, Kutargaom is so close to Surat, that those inhabitants who might be desirous of having their children educated would have no difficulty in sending them to the vernacular schools of that city.

104. In his report on the school at Bardoli, Mr. Graham alludes to the warm interest taken in its welfare by Golám Moidin, the Munsif; and in quoting his remarks

we beg to express our acknowledgments to this gentleman for his liberal encouragement of education :—" The Munsif, Golám Moidin, interests himself very much in its welfare : occasionally he holds private examinations of the pupils, and distributes prizes at his own expense ; and when the inhabitants assemble in sufficient numbers, I am told he makes long and interesting speeches, with a view to impressing them with proper notions of the importance of education. Though he was absent upon duty in Surat when I examined the school, he had a number of very suitable prizes provided for distribution in his own name when I should arrive ; were it not for these commendable exertions, I fear this school would be in a much worse state than it is."

105. In a former part of our report we alluded to the measure which had been adopted for removing worn-out and incompetent teachers. Thirteen men of this description belonged to this division, but it was found impossible to supply so many schools at once with teachers possessing the high character and amount of attainments we required. We have at present, therefore, only removed the masters of Mota, Kupervanj, Ahmode, and Gogo ; but, as soon as we can procure the services of a sufficient number of thoroughly competent men, we shall complete our arrangements.

106. In concluding his report, Mr. Graham gives the following table, showing at one view the number of schools and scholars in his division at the time of his tour, and it will be seen that there is an increase of 321 boys on the previous year :—

Collectorates.	Number of Schools.					Number per Register, exclusive of Female and English Schools.		General Increase on the Year.	Fees collected in				General Increase of Fees on the Year.	
	Gujarâthi Boys' Schools.	Gujarâthi Female Schools.	Hindustâni Schools.	English Schools.	Total.	1851-52.	1852-53.		1851-52.		1852-53.			
									Rs.	*a.*	*Rs.*	*a.*	*Rs.*	*a.*
Surat	16	1	1	1	19	1093	1075		550	2	556	1		
Broach	5	0	0	1	6	456	417		271	5	274	14		
Kaira	7	0	0	0	7	602	677		352	7	400	5		
Ahmedabad....	9	2	0	1	12	740	1043		444	12	526	6		
Total	37	3	1	3	44	2891	3212	321	1618	10	1757	10	139	0

Third Division.

107. The schools of this division remain under the superintendence of Mr. Baker, who was appointed Superintendent in November 1851. From September till April Mr. Baker was constantly employed in moving about through the four Collectorates comprised in his division, and in the course of this time he examined every school contained in it. We have since received a very minute and carefully prepared report, giving full particulars of the state of education in these Collectoates, and we believe we are fully justified in stating that the schools, with some exceptions, are in a very satisfactory state.

108. The best schools in this division are those at Rutnagiri Nos. 1 and 2, Chiploon, Vingorla, and Malwan, in the Rutnagiri Collectorate; at Belgaum, Sadalga, Bailhongal, and Gokak, in the Belgaum Collectorate; at Dharwar and at Hangul, in the Dharwar Collectorate; and at

Tanna and Mahim in the Tanna Collectorate. The schools at Rutnagiri have long been the two best in the division, and are fully equal to the best schools in the other divisions. No. 1 contains 197 pupils, and No. 2 contains the largest number in this or any other division, viz. 261. All subjects are well taught in both, and their excellent condition reflects the greatest credit on the masters.

109. We mentioned in our last report, that in consequence of the very unsatisfactory and unpromising state of two schools in the Rutnagiri collectorate, and of three in that of Dharwar, we had considered it necessary to close them, regarding it as a waste of our resources to support schools of this nature; and in adopting this measure we stated our reasons for so doing through all the schools of the division, so that the inhabitants of every town and village containing a Government school might be made fully aware that schools of this description would no longer be allowed to exist. The following remarks by Mr. Baker will show that this measure has been attended with good results. He says:—"The active measures carried into practice by the Board during the last twelve months have formed the commencement of a new era in the history of our schools, and are likely to exercise a powerful influence upon the feelings of the Native community with regard to the importance of education. The abolition of the worst schools, which has taken place since forwarding my last report, although depriving a few irregular students of the opportunity of securing, without compromise to their own private feelings and enjoyments, the inefficient instruction of teachers equally as disorderly, has given altogether a new stamp to the order of the Government vernacular educational institutions, and has placed remaining establishments upon a much firmer

footing than was ever before attained by them. Such, indeed, is the success of these proceedings that schools, which were twelve months ago languishing and almost despaired of, are now freshening up with very gratifying promises, and schools which were in satisfactory condition, and not over-crowded, are in many instances now daily entered by an overwhelming attendance. For example, in the former case I beg to mention Malwan, Savadatti, and Bidi, and in the latter Rutnagiri No. 2, Chiploon, and Belgaum Canarese and Marátha schools."

110. We have considered it necessary to adopt the same course with the schools at Penn and Tarapur, in the Tanna Collectorate, and with the one at Badami, in the Collectorate of Belgaum. They were in an unsatisfactory state, the attendance of the boys most irregular, and the inhabitants indifferent to their welfare. We therefore closed them.

111. In a former part of our report we alluded to the important measure adopted for removing worn-out and incompetent teachers, and for supplying their places with thoroughly efficient ones. The number to be removed in this division was six. The places of four have already been supplied, and we hope to complete our arrangements as soon as the senior pupils of the normal class of the Poona College are thoroughly qualified for the duty of teaching. Connected with the adoption of this measure, the Superintendent remarks :—" With regard to the progress made by the schools during the last twelve months I have not in this report much to say. The year that has just passed must be regarded as the epoch of a reformation in our system of discipline, from which we may hereafter hope to trace a progressive improvement both in the studies and in the order of our schools. Through the superannuations and

dismissals which have taken place during that period, nearly the half of our schools have passed into the hands of strange masters, some at an earlier and some at a later date; and it is very gratifying to find that all the changes which have taken place, with only one exception, (Hubli Canarese school, a hopeless and undeserving case,) promise to be successful. The only advancement upon the range of last year's studies that has lately been made appears in the Rutnagiri No. 1 school, in the shape of a class there undergoing instruction in the rudiments of astronomy and natural philosophy, which the master is endeavouring with much pains to teach the first principles of. Independent of this, there has been no extension whatever, and the only changes which have taken place in this respect are, that many schools, which were last year in very primitive and unsatisfactory stages of knowledge, have, through the good management of new masters, assumed quite another character; and instead of threatening, as they then did, disappointment to all hopes for their success, they now promise to become flourishing institutions. I beg also to remark that the more advanced subjects taught in our schools have been studied in a much greater proportion by the mass of the pupils during last year than was the case in the preceding one, and that the junior classes have lately been much better attended to."

112. In several previous reports we have noticed the fact that the state of education in the Rutnagiri Collectorate is far in advance of that in either of the other three Collectorates comprised in this division, viz. Tanna, Belgaum, and Dharwar. Mr. Baker, in alluding to this subject, partly attributes the circumstance to the following reasons. He says:—"Rutnagiri, it is generally known, affords but very limited employment to its population, and

thus numbers are necessarily driven, not to depend upon the resources of the Zillah, but to seek employment in other fields, in such a way as may be most congenial to their feelings. There are only two outlets from impending want to which the needy in this part of the Presidency can fly for escape: the one is to migrate to other quarters upon agricultural pursuits, and the other to seek distant support as Kárkuns or Pundits—the former invites only those whose occupation it is to till the land, and who, for the most part, being void of judgment and buried in ignorance, prefer rather to remain at home upon the certainty of penury and wretchedness than to hazard a removal from which they might never return. The other, however, more enticing in its inducements, as holding out the prospect of eventual restoration to their homes, induces many to prepare themselves for their callings, and our schools, being the most direct channel to such ends, are resorted to for the purpose, and prosper in consequence. The Tanna Collectorate, bordering as it does upon the Presidency, and being the high road of an immense traffic, possesses internal resources for the support of its population infinitely superior to the Rutnagiri Collectorate, and sufficiently enticing to invite many to quit their studies at an early stage, and prematurely to aspire to independence, and thus, probably, our schools in those parts have become neglected. Although our schools in the Tanna Collectorate are less fortunately situated for their prosperity than those in the Rutnagiri, they nevertheless possess considerable advantages over the Collectorates of Belgaum and Dharwar, and the greater improvement should be expected from that quarter. In the Tanna Collectorate the schools are of one class, and the language spoken in the district is for the most part the same as that of the schools, viz. Ma-

ráthi, and there is nothing whatever in the organization of that Collectorate to interrupt the steady advancement of the schools, if regular attendance and moderate attention could only be secured. In the Belgaum and Dharwar Collectorates the case is different. Here two languages are spoken, Canarese and Maráthi; the one is as much in vogue as the other, and they mutually tend to corrupt each other. So necessary is a knowledge of both for business purposes in this part of the country, that an attempt to obtain employment, even as the meanest Kárkun, with the knowledge of only one, is as fruitless as would be an effort to abolish the other. In all the Government schools in these two Collectorates, except the one at Sadalga, where the Canarese language begins in a northerly direction to lose its influence, both the Canarese and Maráthi languages are taught, though not throughout in a corresponding ratio. In Maráthi schools more attention is given to Maráthi, and *vice versâ* in the Canarese. Thus, whilst in Rutnagiri and Tanna there is but one language for the students to prepare, and through this to receive all their lessons, in the Belgaum and Dharwar Collectorates there are two to be contended with, and to be learnt, with disadvantages of corruption which do not exist in the former places. Under such circumstances it is easy to imagine that progress in general information should be tardy. Entirely to exclude Maráthi from the Canarese, and Canarese from Maráthi schools, whilst both languages are in fashion in the neighbourhood, would be a measure disastrous to our schools, and, if not entirely ruinous to the whole, would be the means of destroying a great number, and of hurling back into ignorance a large population. The only expedient course left to the guardians of education, then, is to sympathise with the people to this

extent, and to endeavour to improve them through the channel of both languages."

113. Mr. Baker draws a favorable though brief comparison between the state of the schools in his division and that of the national schools in England, and he then explains the reason why some are in a backward state. He says:—"Although for the most part our schools are progressing satisfactorily, and, if compared with the state of the national schools in England when I left the country five years back, flourishingly, there are still a few which keep in the back ground, between which and our most advanced seminaries there will, I fear, from local difficulties, soon appear a vast blank. I allude here to such as have been established at Palgad, Khed, and Palshet, in the Rutnagiri Collectorate, Itgi and Jamboti, in the Belgaum Collectorate, and Bankapur, Morab, Kalghatgi, and Misricote, in the Dharwar Collectorate, in all which places the majority of the villagers follow agricultural pursuits, and are compelled to remove their children from school at an early age, in order to have their services in the fields."

114. In the course of his report Mr. Baker gives a table showing the number of schools and pupils in his division at the end of February, and this we beg to subjoin. Compared with a corresponding table in our last report, it will be seen, that notwithstanding the closing of five schools at Haveri, Tudas, Ratehally, Kelshi, and Anjarle, for reasons stated in that report, the table shows an increase of 176 boys during the year:—

Collectorates.	Number of Schools.				Number of Pupils in attendance per Register, on the 28th of February 1853.	Number of Pupils paying Fees during the month of February 1853.	Amount collected from Fees during the eleven months between the end of March 1852 and the end of February 1853.		
	Marathi.	Canarese.	Hindustani.	Total.					
							Rs.	*a.*	*p.*
Rutnagiri	18	0	0	18	1,874	1,655	945	8	0
Belgaum	4	8	0	12	860	822	553	3	0
Dharwar	2	9	0	11	844	812	509	1	0
Tanna	9	0	1	10	675	563	431	8	0
Total	33	17	1	51	4,253	3,852	2,439	4	0

115. In concluding the subject of our vernacular schools in the districts, we subjoin a tabular statement, showing the number of schools and pupils in each Collectorate at the end of March last, and a corresponding statement, showing how they stood in the same month the preceding year, as stated in our last report:—

Collectorates.	Number of Schools.		Number of Scholars.	
	31st March 1852.	31st March 1853.	31st March 1852.	31st March 1853.
Poona	22	21	1,010	1,177
Ahmednuggur	30	26	1,624	1,548
Sholapur	14	14	579	624
Kandeish	8	7	409	400
Surat	17	17	875	859
Broach	5	6	420	371
Ahmedabad	10	11	675	869
Kaira	7	7	564	642
Rutnagiri	20	18	1,440	1,842
Dharwar	14	11	909	818
Belgaum	12	11	793	854
Tanna	10	8	629	549
Poorandhar Village Schools	59	59	1,161	1,161
Total	228	216	11,088	11,714

GRANT MEDICAL COLLEGE.

Session 1852-53.

Establishment of Professors on April 30th, 1853.

Principal, and Professor of the Institutes and Practice of Medicine	C. MOREHEAD, M.D.
Professor of Anatomy and Surgery.	J. PEET, Esq. (Absent on sick certificate.)
Acting Ditto	G. R. BALLINGALL, M.D.
Professor of Chemistry and Materia Medica	H. GIRAUD, M.D.
Professor of Midwifery	R. PEELE, Esq. (Absent on sick certificate.)
Acting Ditto	W. C. COLES, M.D.
Professor of Medical Jurisprudence.	W. C. COLES, M.D.
Curator of the Museum	J. F. WATSON, A.M., M.D.

116. The seventh session was opened on the 15th June 1852 with an introductory lecture by Dr. Haines, the Officiating Professor of Chemistry and Materia Medica. The session was attended by 22 students studying for diplomas, by 16 student apprentices, and by 12 warrant medical officers and hospital assistants, making a total of 50. The eighth session commences on the 15th proximo.

Number of students.

117. Dr. Morehead, the Principal, has forwarded his report of the college for the session 1852-53, and this we beg to submit in the appendix. It gives a clear statement of the events of the session, and to it we beg to refer your

Principal's report.

Lordship for full particulars. No institution in our charge gives us more unmixed satisfaction.

Final or diploma examination.

118. The final or diploma examination was conducted by our colleague Dr. McLennan as Government Examiner, assisted by Surgeon M. Stovell, of the European General Hospital, Surgeon W. Arbuckle, M.D., Civil Surgeon, and Assistant Surgeon Campbell, M.D., Superintendent of the Lunatic Asylum, as Assessors. The proceedings on the occasion will be found amply detailed in the report of the examiner, addressed to your Lordship in Council. This report, and the reply from Government, will be found in the appendix. The result of the examination was the granting of the diploma of graduate to three out of six candidates. Their names will be seen in the report.

Return of Dr. Giraud, Professor of Chemistry and Materia Medica.

119. Dr. Giraud, Professor of Chemistry and Materia Medica, having returned from the Neilgherry Hills in December, Dr. Haines, who had officiated during his absence for nearly two years to our entire satisfaction, was relieved from his duties in the college.

Professorships of Materia Medica, of Anatomy and Physiology, and of Ophthalmic Surgery.

120. We lately had occasion to address your Lordship in Council on the subject of increasing the efficiency of the college, by partially remodelling the professorships, and by creating three new chairs, viz. one of materia medica, a second of anatomy and physiology, and a third of ophthalmic surgery,—the latter being added *ex-officio* to the appointment of Oculist. The subject was brought forward in a minute by our colleague Dr. McLennan, who pointed out the desirabi-

lity of increasing the completeness of the means of instruction by removing the subject of materia medica from the professorship of chemistry and botany, physiology from the professorship of the institutes and practice of medicine, and anatomy from the professorship of surgery. Dr. McLennan's minute will be found in the appendix. If the measures proposed should be sanctioned, the college staff would then consist of—

A Professor of Anatomy and Physiology.
Ditto Chemistry and Botany.
Ditto Materia Medica and Pharmacy.
Ditto Surgery, Principles and Clinical.
Ditto Medicine, Principles and Clinical.
Ditto Midwifery, Principles and Clinical.
Ditto Medical Jurisprudence.
Ditto Ophthalmic Surgery, *ex-officio*.

NATIVE LIBRARIES.

121. We stated in our last report that a commencement had been made in the formation of Native libraries in some of the principal Zillah towns of this Presidency. In addition to those which we then mentioned as having been established, libraries have since been formed at Sattara and Sholapoor, and we have presented both with maps and a copy of each of our vernacular publications. Native libraries, therefore, now exist at Ahmednuggur, Poona, Ahmedabad, Surat, Baroda, Tanna, Rutnagiri, Belgaum, Sattara and Sholapoor, and we have reason to believe that increased interest is being taken in most of them by the Native community.

122. We also mentioned in our report that your Lordship in Council had intimated to us that the Government of the North-western Provinces had expressed a desire to furnish public libraries with copies of all works printed by that Government, on receiving some guarantee for the character and probable permanence of such institutions, and on reference to us on the subject, we considered ourselves justified in handing up a list of the libraries which were then in existence, as being worthy of the donation alluded to, and we included in the list the library of the Students' Literary and Scientific Society, the Native General Library of Bombay, and the Library of the Bombay Branch of the Royal Asiatic Society. We have now to express our obligations to the Government of the North-western Provinces for kindly supplying us with a large collection of very valuable works, received through your Lordship's Government in September. A list of these works will be found in the appendix. We distributed them principally among the libraries named, but reserved a copy of each of the works in Sanskrit and a few others for the library of the Poona College.

123. We have been favored with reports on the state of the libraries at Ahmednuggur, Ahmedabad, and Tanna, and these we beg to submit in the appendix.

BOOK DEPOSITORIES

Of the Elphinstone Institution and Poona College.

124. To form a collection of books suitable for the different kinds of schools was one of the original objects of the Native Education Society, and the several reports

of that Society exhibit in detail the origin and progressive increase of the depository of the Elphinstone Institution. The depository of the Poona College was formed in 1840, with the view of facilitating the distribution of books in the vernacular schools in the Deccan; and both depositories have to a considerable extent been supplied with books lithographed at the college press. Branch depositories have since been formed at Ahmednuggur, Nassick, Dhulia, Sholapoor, Juneer, Sattara, Surat, Broach, Ahmedabad, Rutnagiri, Belgaum, Dharwar, and Nariad. The six first-named are supplied direct from the depository of the Poona College, the others from that of the Elphinstone Institution. We will now mention briefly the additions which have been made to our stock of vernacular books since the date of our last report.

125. The following works were printed for us in Bombay during the past year, on account of the depository of the Elphinstone Institution:—

Gujaráthi.	No. of Copies.
1. Natural Philosophy for Beginners.....	500
2. Moral Class Book.....	1,088
3. History of British India	1,000
4. Pleasing and Moral Tales, or Niti Bodh Katha.....	1,000
5. Moral Maxims.....	2,000
6. Vernacular Reader, No. 1.....	1,000
7. Outlines of Grammar, or Bál Viákaran	2,000
8. Spelling Book, or Lipidhárá.....	3,000
Maráthi.	
1. Natural Philosophy for Beginners.....	500
2. Spelling Book, or Lipidhárá.....	500
3. Numeration Tables, or Ank Lipi.....	650

Hindustáni.	No. of Copies.
1. Talim Námah, 2 vols.	2,000
2. Jami-ul-Hikáyat	500

126. The following vernacular publications were purchased during the year :—

Maráthi.	No. of Copies.
1. Dnyán Bodhak, No. 2	1,000
2. Course of Reading	100
3. History of India	50
4. Evils of Perjury	50
5. Memoir of Náná Furnávese	25

Gujaráthi.	
1. Dnyán Bodhak, No. 1	1,000

Hindustáni in Nágri Character.	
1. Niti Bodh Kathá, in 2 parts	200
2. Updeish Kathá	200

Canarese.	
1. Bhugole Vidiá	100
2. Purnank	70

127. Most of the books named in para. 125 are reprints of former editions. Two or three, however, being new translations, require a word of explanation. The first on the list, "Natural Philosophy for Beginners," originated with Mr. Harkness, who has always taken great interest in the work of translation. He suggested that a translation of the English work, bearing this title, into Maráthi and Gujaráthi, would be likely to prove useful and interesting in our principal vernacular schools; and he further suggested that the two versions should be printed uniformly, so that the diagrams cut for one might be available for the other. The

translation into Maráthi was entrusted to Govind Gangádhar, that into Gujaráthi to Kahándás Mansárám, both able men, who had been educated in the Elphinstone Institution. Mr. Harkness was kind enough to superintend both translations, and we have reason to believe they are closely and faithfully executed.

128. The other new translations are into Gujaráthi, viz. The History of British India, Pleasing and Moral Tales, and Vernacular Reader No. 1. These were all translated by Ranchodás Girdharbhái, under the general superintendence of Mr. Graham, Superintendent of the Schools in the 2nd Division. The first is a translation, from Maráthi, of the work by the late lamented Bál Gangádhar Shástri. The second and third are translations, from Maráthi, of useful works by Major Candy, bearing these titles.

129. The following works in Maráthi were lithographed at the Press of the Poona College during the period under review:—

	No. of Copies.
1. Purnank Ganit	3,000
2. History of England, 2nd volume	1,000
3. Kirát, the first Sarg	1,000
4. Kirát, the second Sarg	1,000
5. Sanskrit and Maráthi Lexicon (in part)	1,000
6. Bharat Champu	1,000
7. History of the Maráthas	2,000
8. Niti Bodh Kathá (Moral Tales)	2,000
9. Rámáyán Champu	1,000
10. Jágti Jot (Bálbodh)	2,000
11. Padárth Vidnyán, by Assistant Professor Keru Laxshaman Chhatre	100

130. Having now concluded our report, we have only to express a hope that the general state of education will

be deemed by your Lordship in Council to be satisfactory, and that the manner in which our duties have been discharged will meet with your approval.

We have the honor to be,

My Lord,

Your Lordship's most obedient Servants,

(Signed) JOHN MCLENNAN.
„ METCALFE LARKEN.
„ ROBERT WALLACE.
„ JAGONATH SANKERSETT.
„ BOMANJI HORMASJI.
„ BHAU DAJI.
„ M. STOVELL, *Secretary*.

Bombay, 14*th May* 1853.

APPENDICES.

APPENDIX No. I.

STATEMENT OF ACCOUNTS.

DR. *Board of Education in Account with Education.* CR.

1852.		Rs.	a.	p.	1852.	I.	Rs.	a.	p.
Apr. 30th	Government Annual Grant (General).	1,25,000	0	0		*Establishments borne on "General Grant."*			
,, ,,	Ditto do. for Poona College	26,552	10	7		A — Establishment of Board of Education	7,032	12	6
,, ,,	Ditto do. for Grant Medical College	15,953	4	0	Apr. 30th	A — Superintendence	9,935	4	8
,, ,,	Subscriptions	2,408	0	0		General Charges. — Maráthi Translator	3,204	0	0
,, ,,	Fees from Students in the Elphinstone Institution	11,723	0	0		General Charges. — Government Examiner of the Grant Medical College	1,200	0	0
,, ,,	Ditto do. in the Poona College.	969	0	0		General Charges. — Publication of Reports	1,062	1	0
,, ,,	Ditto do. in the English Schools.	4,141	6	1		B			
	PRIVATE ENDOWMENTS.*				,, ,,	Presidency Charges. — Elphinstone Institution	58,313	11	6
						Presidency Charges. — Vernacular Schools (7)	5,844	7	2
,, ,,	Interest on the Funded Capital	20,465	3	8		C — 1st Division, Deccan. — English Schools (1)	3,518	0	0
						C — 1st Division, Deccan. — Vernacular do. (74)	14,979	5	7
						C — 1st Division, Deccan. — Village do. (59)	3,642	13	9
					,, ,,	Mofussil Charges. — 2nd Division, Gujerat. — English Schools. (3)	14,195	5	4
						Mofussil Charges. — 2nd Division, Gujerat. — Vernacular do. (39)	9,532	12	0
						Mofussil Charges. — 3rd Division, S.M.Country. — English Schools. (3)	4,838	0	0
						Mofussil Charges. — 3rd Division, S.M.Country. — Vernacular do. (56)	11,922	5	6
					,, ,,	Books supplied to English Schools	1,334	0	0
					,, ,,	Ditto to Vernacular do.	8,863	7	6
					,, ,,	Grants for School-houses	2,888	13	2
						II.			
						Establishments on "Special Grants."			
					,, ,,	D — Poona College	28,990	12	1
,, ,,	Balance	38	11	5	,, ,,	E — Grant Medical College	15,953	4	0
	Total.... Rupees	2,07,251	3	9		Total.... Rupees	2,07,251	3	9

* Elphinstone Professorship Fund, West Scholarship Fund, Clare Scholarship Fund, and Elphinstone Institution Fund.

(Errors excepted)

(Signed) JOHN WARDEN, *President.*
,, JOHN MCLENNAN, } *Members.*
,, JAGONATH SANKERSETT, }

(Signed) M. STOVELL, *Secretary.*
(Signed) BOMANJI HORMASJI, } *Members.*
,, BHAU DAJI, }

Bombay, 30th April 1852.

DR. *Board of Education in Account with Government Annual Grant of Rs. 1,25,000.* CR.

1852.		Rs.	a.	p.	1852.		Rs.	a.	p.
Apr. 30th	Government Annual Grant	1,25,000	0	0	Apr. 30th	Elphinstone Institution*	38,911	8	10
					,, ,,	Poona College*	5,350	0	0
					,, ,,	7 English Schools	19,743	14	5
					,, ,,	Government Examiner of the Grant Medical College	1,200	0	0
					,, ,,	Publication of Reports	1,062	1	0
						Vernacular Department.			
					,, ,,	7 Vernacular Schools at the Presidency	5,844	7	2
					,, ,,	74 ditto in the Deccan	14,079	5	7
					,, ,,	39 ditto in Gujerat	9,532	12	0
					,, ,,	56 ditto in S. M. Country	11,922	5	6
					,, ,,	59 Purandhar Village Schools.....	3,642	13	9
					,, ,,	Books supplied to Vernacular Schools.....	8,863	7	6
					,, ,,	Grants for School Houses.....	2,888	13	2
					,, ,,	Superintendence	9,935	4	8
,, ,,	Balance	12,080	13	7	,, ,,	Maráthi Translator.....	3,204	0	0
	Total....Rupees	1,37,080	13	7		Total....Rupees	1,37,080	13	7

* In this Account, only that portion of the expenses appears which is borne by the Government Grant.

(Errors excepted)
(Signed) M. STOVELL, *Secretary.*
(Signed) JOHN WARDEN, *President.*
,, JOHN MCLENNAN,
,, JAGONATH SANKERSETT,
,, BOMANJI HORMASJI,
,, BHAU DAJI,
} *Members.*

Bombay, 30th April 1852.

ELPHINSTONE PROFESSORSHIP FUND.

DR. *Abstract Account of Receipts and Disbursements, from the 1st May 1851 to the 30th April 1852.* CR.

1851.		Rs. a. p.	1852.		Rs. a. p.	Rs. a. p.
May 1st	Balance of last year's Account.	9,070 13 11	Apr. 30th	Salary of the Secretary	2,400 0 0	
1852.			,, ,,	Ditto of the Professors	27,133 1 0	
Apr. 30th	Annual Allowance		,, ,,	Normal Scholarship Allowances	1,774 13 3	
	from Govt. Rs. 22,000 0 0		,, ,,	Salary of the Clerks	1,705 2 0	
,, ,,	Interest on the		,, ,,	Ditto of the Peons	288 0 0	
	Funded Capital. 16,170 0 0			*Contingent Expenses.*		33,301 0 3
		38,170 0 0	,, ,,	Stationery	85 0 0	
			,, ,,	Binding Office Records and Reports ..	38 0 0	
			,, ,,	Government Agent's Commission	40 6 6	
			,, ,,	Clothing for Peons	52 0 0	
			,, ,,	Professor Harkness' Absentee Allowance.	1,500 0 0	
			,, ,,	Sundries	64 10 0	
						1,780 0 6
			,, ,,	Balance in the Bank of Bombay	12,132 10 0	
			,, ,,	Ditto in hand	27 3 2	35,081 0 9
						12,159 13 2
	Total.... Rupees	47,240 13 11		Total..... Rupees		47,240 13 11

(Errors excepted)

Bombay, 30th April 1852. (Signed) M. STOVELL, *Secretary.*

We the undersigned have examined this Account, and do find a Balance in favor of the Elphinstone Professorship Fund, amounting to Rupees twelve thousand one hundred and fifty nine, annas thirteen, and pies two.

(Signed) JOHN WARDEN, *President.*
,, JOHN MCLENNAN, } *Members.*
,, JAGONATH SANKERSETT, }

(Signed) BOMANJI HORMASJI, } *Members.*
,, BHAU DAJI, }

WEST SCHOLARSHIP FUND.

DR. *Abstract Account of Receipts and Disbursements, from the 1st May 1851 to the 30th April 1852.* CR.

1851.		Rs.	a.	p.	1852.		Rs.	a.	p.
May 1st	Balance of last year's Account.....	933	15	5	Apr. 30th	Scholarship Allowances.....	1,968	12	0
1852.					„ „	Government Agent's Commission.....	2	10	2
Apr. 30th	Annual Allowance from Government.	1,124	0	0			1,971	6	2
„ „	Interest on the Funded Capital	1,061	9	2	„ „	Balance in the Bank of Bombay.....	1,148	2	5
	Total....Rupees	3,119	8	7		Total....Rupees	3,119	8	7

(Errors excepted)

Bombay, 30th April 1852.

(Signed) M. STOVELL, *Secretary.*

We the undersigned have examined this Account, and do find a Balance in favor of the West Scholarship Fund, amounting to Rupees one thousand one hundred and forty-eight, annas two, and pies five.

(Signed) JOHN WARDEN, *President.*
„ JOHN MCLENNAN,
„ JAGONATH SANKERSETT,
„ BOMANJI HORMASJI,
„ BHAU DAJI,
} *Members.*

CLARE SCHOLARSHIP FUND.

DR. *Abstract Account of Receipts and Disbursements, from the 1st May 1851 to the 30th April 1852.* CR.

1851.		Rs.	a.	p.	1852.		Rs.	a.	p.
May 1st	Balance of last year's Account	1,223	15	0	Apr. 30th	Scholarship Allowances.....	2,380	0	0
1852.					,, ,,	Government Agent's Commission.....	3	5	6
Apr. 30th	Annual Allowance from Government.	1,632	0	0					
,, ,,	Interest on the Funded Capital	1,343	10	6	,, ,,		2,383	5	6
						Balance in the Bank of Bombay	1,816	4	0
	Total....Rupees	4,199	9	6		Total....Rupees	4,199	9	6

(Errors excepted)

Bombay, 30th April 1852. (Signed) M. STOVELL, *Secretary.*

We the undersigned have examined this Account, and do find a Balance in favor of the Clare Scholarship Fund, amounting to Rupees one thousand eight hundred and sixteen, and annas four.

(Signed) JOHN WARDEN, *President.*
,, JOHN MCLENNAN,
,, JAGONATH SANKERSETT,
,, BOMANJI HORMASJI,
,, BHAU DAJI.
} *Members.*

1868

GAEKWAR SCHOLARSHIP FUND.

DR. *Abstract Account of Receipts and Disbursements, from the 1st May 1851 to the 30th April 1852.* CR.

1851.		Rs.	a.	p.	1852.		Rs.	a.	p.
May 1st	Balance of last year's Account.....	260	15	9	Apr. 30th	Scholarship Allowances	170	0	0
1852. Apr. 30th	Interest on the Funded Capital.....	250	0	0	,, ,,	Government Agent's Commission	0	10	0
							170	10	0
					,, ,,	Balance in the Bank of Bombay.....	340	5	9
	Total....Rupees	510	15	9		Total....Rupees	510	15	9

(Errors excepted)

Bombay, 30th April 1852. (Signed) M. STOVELL, *Secretary.*

We the undersigned have examined this Account, and do find a Balance in favor of the Gaekwar Scholarship Fund, amounting to Rupees three hundred and forty, annas five, and pies nine.

(Signed) JOHN WARDEN, *President*,
,, JOHN MCLENNAN,
,, JAGONATH SANKERSETT,
,, BOMANJI HORMASJI,
,, BHAU DAJI,
} *Members.*

DR. *The Sundarji Jivaji Prize in Account with the Elphinstone Institution.* CR.

1842.		Rs.	a.	p.	1843.		Rs.	a.	p.
Aug. 9th	Received from Balaji Sundarji two 4 per Cent. Government Promissory Notes for Rs. 500 each, Nos. 15019 and 15763 of 1835-36.....	1,000	0	0	Jan. 31st	A Prize awarded to Dhondu Janardhan	40	0	0
					1846.				
					Apr. 30th	A Prize awarded to Govind Gangadhar	40	0	0
1852.					1850.				
					June 30th	A Prize awarded to Narayan Vishnu Bapat	40	0	0
Apr. 1st	Ditto Interest thereon, from 1st April 1842 to the 31st March 1853, being 10 years, at 4 per cent. per annum.	400	0	0	1852.				
					Apr. 30th	A Prize awarded to Vishvanath Narayan	40	0	0
					" "	Government Agent's Commission and Fees.....	4	0	0
							164	0	0
					" "	Balance	236	0	0
	Total....Rupees	400	0	0		Total....Rupees	400	0	0

(Errors excepted)

Bombay, 30th April 1852. (Signed) M. STOVELL, *Secretary.*

We the undersigned have examined this Account, and do find a Balance in favor of the Sundarji Jivaji Prize Fund, amounting to Rupees two hundred and thirty-six.

(Signed) JOHN WARDEN, *President.*
" JOHN MCLENNAN,
" JAGONATH SANKERSETT,
" BOMANJI HORMASJI,
" BHAU DAJI,
} *Members.*

DR. *The Bell Prize in Account with the Elphinstone Institution.* CR.

1848.		Rs.	a.	p.	1852.		Rs.	a.	p.
Jan. 1st	Received from Naorozji Fardunji and others a 5 per Cent. Government Promisory Note, No. 3609 of 3359 of 1841-42, for.....	1,000	0	0	Jan. 1st	Paid Government Agent's Commission and Fees..	2	8	0
					Apr. 30th	Balance	197	8	0
1852.									
Jan. 1st	Ditto Interest thereon, from the 1st January 1848 to the 30th December 1851, being 4 years, at 5 per cent. per annum.....	200	0	0					
	Total....Rupees	200	0	0		Total....Rupees	200	0	0

(Errors excepted)

Bombay, 30th April 1852. (Signed) M. STOVELL, *Secretary.*

We the undersigned have examined this Account, and do find a Balance in favor of the Bell Prize Fund, amounting to Rupees one hundred and ninety-seven, and annas eight.

(Signed) JOHN WARDEN, *President.*
„ JOHN MCLENNAN,
„ JAGONATH SANKERSETT,
„ BOMANJI HORMASJI,
„ BHAU DAJI, } *Members.*

APPENDIX No. II.

Statement of Fees.

Tabular Statement, showing the Amount of Fees received from the 1st of April 1852 to the 31st March 1853, from the Elphinstone Institution and Government Vernacular Schools at the Presidency, and from the English and Vernacular Schools in the Districts.

	Rs.	a.	p.	Rs.	a.	p.
Presidency.						
Elphinstone Institution	12,232	0	0			
Government vernacular schools	659	0	0			
				12,891	0	0
English Schools.						
Surat	1,419	0	0			
Ahmedabad	661	8	0			
Broach	488	0	0			
Ahmednuggur	365	0	0			
Rutnagiri	281	0	0			
Dharwar	136	8	0			
Tanna	691	4	0			
Sattara	69	0	0			
				4,111	4	0
Vernacular Schools.						
1st Division.						
In the Collectorate of Poona	91	14	0			
Ditto of Ahmednuggur	126	2	0			
Ditto of Sholapoor	51	9	0			
Ditto of Khandesh	43	2	0			
In the Districts of Satura	19	1	0			
				331	12	0
2nd Division.						
In the Collectorate of Surat	90	12	0			
Ditto of Broach	44	3	0			
Ditto of Kaira	75	4	0			
Ditto of Ahmedabad	88	11	0			
				298	14	0
3rd Division.						
In the Collectorate of Tanna	73	4	0			
Ditto of Rutnagiri	183	15	0			
Ditto of Belgaum	105	7	0			
Ditto of Dharwar	98	6	0			
				461	0	0
			Total.... Rupees	18,093	14	0

The fees from the Institution, from all the English schools, and from the vernacular schools at the Presidency, are carried to the General Fund, on account of education.

The fees from the vernacular schools in the districts are disposed of differently. One-half is given to the masters of the different schools, provided the annual examination is satisfactory; the remainder is disposed of in repairing school-houses, in providing books for the school libraries, in gratuities to masters and monitors, or in any other way which the School Committee and Superintendent may consider more desirable.

APPENDIX No. III.

STATEMENT OF BOOK DEPOSITORY.

DR. *Receipts and Disbursements of the Book Depository of the Elphinstone Institution for* 1851-52. CR.

1852.		Rs.	a.	p.	Rs.	a.	p.
Apr. 30th	Books sold to Students, &c. at the Presidency	9,086	3	6			
„ „	Ditto do. in the Branch Depositories in the Mofussil	2,169	9	0			
					11,205	13	0
„ „	Ditto supplied to the Government English Schools in the Mofussil	3,330	3	2			
„ „	Ditto do. to the Vernacular Schools in the Mofussil	7,476	9	0			
„ „	Ditto do. to the Poona College	4,628	6	0			
„ „	Ditto do. to the Grant Medical College	3,510	4	3			
„ „	Ditto do. to Regimental Schools	5,143	0	0			
					24,058	6	5
„ „	Ditto presented to Native Libraries	.....			422	9	0
„ „	Advance recovered on account of Books and School Materials	.....			1,542	0	0
					37,228	12	5
„ „	Stock of Books in hand on the 30th April 1852	70,434	15	0			
„ „	Ditto do. on the 1st May 1851	65,643	6	14			
					4,791	8	1
	Total....Rupees				42,020	4	6

1852.		Rs.	a.	p.	Rs.	a.	p.
Apr. 30th	Books purchased in England	6,926	11	4			
„ „	Ditto do. in India	7,143	1	5			
„ „	Ditto from the Poona College	4,116	8	0			
					18,186	4	9
„ „	*New Edition of Works Printed.*						
	2000 copies of Dádobá's Grammar, Maráthi	4,560	0	0			
	2000 „ of Æsop's Fables „	2,550	0	0			
	2000 „ of Life of Columbus, Gujaráthi	1,375	0	0			
	1000 „ of Dnyán Bodhak „	500	0	0			
	2050 „ of History of India „	1,843	12	0			
	1900 „ of Moral Class Book „	1,092	8	0			
	2000 „ of Bálmitra, 1st vol. „	2,250	0	0			
	1000 „ of do. 2nd vol. „	1,200	0	0			
	3000 „ of Tálim Námah, 1st vol., Hindustáni	1,500	0	0			
					17,381	4	0
„ „	Charges for Translation	121	5	4			
„ „	Binding Books for sale	122	4	0			
„ „	Depository's Commission	2,595	14	9			
„ „	Advance on account of Books and School Materials	1,660	0	0			
					4,499	11	1
					40,267	3	10
„ „	Balance				1,753	0	8
	Total....Rupees				42,020	4	6

(Errors excepted)

Bombay, 30th April 1852.

(Signed) M. STOVELL, *Secretary.*

APPENDIX No. IV.

RESIGNATION OF THE HONORABLE SIR ERSKINE PERRY, PRESIDENT OF THE BOARD OF EDUCATION.

To the RIGHT HONORABLE THE GOVERNOR IN COUNCIL.

MY LORD,

I have the honor to announce to you that I have taken my passage to England by the steamer of the 17th proximo, and therefore on that day I shall vacate the office of President of the Board of Education, which I have filled for nearly nine years.

I have the honor to be,
My Lord,
Your most obedient Servant,
(Signed) E. PERRY.

Bandora, 23rd October 1852.

No. 4075 of 1852.

GENERAL DEPARTMENT.

To the HONORABLE SIR ERSKINE PERRY, KT.

HONORABLE SIR,

We reply to your letter of the 23rd of last month, in which you tender your resignation of the office of President of the Board of Education from the date of your approaching departure to Europe.

2. We gladly avail ourselves of the opportunity to acknowledge the ability and zeal with which, for a period of nearly nine years, you have filled this important post, and to state in particular that we have been fully sensible of the deference which you

have invariably shown to the instructions of the Government where not exactly in accordance with your own views, though placed, by the high position which you occupied, beyond the ordinary pale of our authority, and the ordinary stimulus of official praise and censure.

3. We may recall to mind on this occasion your strenuous advocacy of the study of the English language as the only efficient means of imparting instruction to the Natives in the higher branches of learning. Though concurring in the main in this opinion, we were unable, as you are aware, to coincide altogether as to the relative degree in which encouragement should be given to Vernacular education, and to the superior order of tuition through the medium of English.

4. It gives us, therefore, now the greater gratification to be able to allude to your zealous and persevering efforts to raise the standard of education in the vernacular languages: we would particularly advert to your successful endeavours to establish normal classes for the training of vernacular masters, to increase the number of superintendents of the vernacular schools, and to render the tuition imparted in them more efficient.

5. But, perhaps, the most important step which has been taken by the Board under your superintendence, and chiefly, as we have reason to believe, in pursuance of your own design, is the amalgamation of the Sanskrit College with the English School at Poona, and the organization of a new College in their room, which bids fair to become a most influential and useful institution.

6. It only remains that we tender you our thanks, in accepting your resignation, for valuable services rendered by you for a long and continuous period, during which your enlarged views have been no less conspicuous than the generous devotion of your time and energies to the cause of education and of Native progress.

We have the honor to be, &c.

(Signed) D. A. Blane.

„ A. Bell.

Bombay Castle, 15th November 1852.

No. 4076 of 1852.

GENERAL DEPARTMENT.

Forwarded for information to the Board of Education.

By order of the Right Honorable
the Governor in Council,
(Signed) J. G. LUMSDEN,
Secretary to Government.

Bombay Castle, 15th November 1852.

To the SECRETARY OF THE BOARD OF EDUCATION.

SIR,

I have the honor to enclose to you a copy of my letter to the Governor in Council, resigning my post at your Board,* and I cannot do so without expressing to my colleagues a lively sense of the gratification I have experienced in presiding over them since the spring of 1844. There have been at times considerable differences of opinion at the Board, as it was natural to suppose there would be amongst independent men, and on a subject so eminently open to discussion as national education. I may also mention that on more than one occasion I have overcome a strong personal inclination to resign, when I thought the Government of Bombay were bent upon carrying out views which I deemed unsound, and which were opposed to those approved of by the Government of India and by the Honorable Court. But I may add, that during the whole of my career I have ever felt grateful to my colleagues for the kindness and attention with which they have received any attempts of mine to promote our common object, and I shall always look back with feelings of unmixed pleasure, and I trust with some profit, to the cordiality, liberal spirit, and zeal, with which men of different religions and different races have co-operated at our Board to promote the welfare of our fellow subjects.

* See letter, page 107.

It is with sincere regret, therefore, that I sever my connection with the Board, and with yourself, who have so zealously performed the duties of Secretary; but I beg that if on any future occasion it may be thought that I can render any services to the Board by my residence in London, you will at all times freely command them. A letter addressed to Baring, Brothers, will always reach me.

I have the honor to be,

Sir,

Your most obedient Servant,

(Signed) E. PERRY.

Bandora, October 25th 1852.

No. 677 of 1852.

To the HONORABLE SIR ERSKINE PERRY, KT.,

President of the Board of Education, Bombay.

HONORABLE SIR,

I am directed by your colleagues, the Members of the Board of Education, to acknowledge the receipt of your letter, dated 25th ultimo, forwarding a copy of your communication of that date to the Right Honorable the Governor in Council, resigning your post as President of the Board from the 17th instant, the date of your intended departure for England.

2. In reply, I am desired to convey to you the expression of their sincere regret at thus losing those most valuable services at the Board of Education, over which you have presided nearly nine years with such marked benefit to the public of this Presidency.

3. Your colleagues feel most sensibly that your enlarged intellect, your cultivated mind, your indefatigable industry, and the influence arising from your high and independent position, have contributed in a marked degree to the extension of those principles on which public Native education is necessarily conducted; and they feel certain that the beneficial effects of your exertions will long be felt throughout the provinces of this Presidency.

4. It is a source of much gratification to them to learn from you that, in their efforts to promote the one great object of the Board, those unavoidable collisions of opinion, which have occasionally occurred, have not disturbed that mutual good feeling which it has been their wish at all times to maintain.

5. They feel most grateful for your kind offer of continuing to aid them at any time they may require assistance, and they desire me to express their fervent hope that your life and health may long be spared, to the benefit of the public and the happiness of your family.

6. For your kind allusion to myself, personally, I must be allowed to express my grateful acknowledgments.

I have the honor to be,

Honorable Sir,

Your most obedient Servant,

(Signed) M. STOVELL,

Secretary.

Board of Education, Bombay, 10th November, 1852.

APPENDIX No. V.

RETIREMENT OF MAHOMED IBRAHIM MUKBA, Esq.

No. 148 of 1853.

To Mahomed Ibrahim Mukba, Esq.

&c. &c. &c.

Sir,

I am directed by the Board of Education to forward for your information, the annexed copies of a letter, addressed by the Board to Government, No. 46, dated 14th ultimo, and of the Government reply, No. 558, of this day's date, and at the same time to express the gratification of the Board at receiving this acknowledgment of the high value entertained by the Right Honorable the Governor in Council for your services in the department of education.

I have, &c.

(Signed) M. Stovell, Secretary.

Board of Education, Bombay, 16th February 1853.

No. 46 of 1853.

To J. G. Lumsden, Esquire,

Secretary to Government, General Department.

Sir,

I am directed by the Board of Education to state, for the information of the Right Honorable the Governor in Council, that Mahomed Ibrahim Mukba, Esq., vacated his seat, as a Member of the Board, on the 1st instant. In making this intimation, I am at the same time directed to express the deep regret which is felt by the Board at thus being deprived of the valuable services of a Native gentleman, who has been labouring in the cause of Native education during the long period of thirty-one years. As far back as 1822 he was elected a Member of the Managing Committee of the Native Education Society, and he has continued so

ever since. In 1834 he became a Member of the Elphinstone College Council, and in 1840 he was elected a Member of the Board of Education. In the course of this long career, this gentleman prepared and published several works, in a great measure at his own expense, for the benefit of the Mussulman population, and on one occasion he received the marked approbation of the Honorable the Court of Directors. As these services, however, are well known to, and highly appreciated by Government, it seems to the Board quite unnecessary to enlarge on the subject; but in severing a connection which has existed so long, and in losing a Member whose ripe experience and matured views have on all occasions proved so useful, the Board feel that they cannot do otherwise than bear the highest testimony to the value both of his services and example.

I have, &c.

(Signed) M. STOVELL, Secretary.

Board of Education, Bombay, 14th January 1853.

No. 458 of 1853.

GENERAL DEPARTMENT.

To the SECRETARY TO THE BOARD OF EDUCATION.

SIR,

I am directed to acknowledge your letter (No. 46) dated 14th of last month, intimating that Mahomed Ibrahim Mukba, Esq., had vacated his seat in the Board of Education.

2. The Right Honorable the Governor in Council participates in the regret which is felt by the Board at the retirement of this gentleman, and I am desired to request that the thanks of Government may be conveyed to him for his valuable and gratuitous services, rendered as a Member of the Board, and for his philanthropic efforts during the long period of thirty-one years to promote Native education.

I have, &c.

(Signed) J. G. LUMSDEN,
Secretary to Government.

Bombay Castle, 16th February 1853.

(True copies)

(Signed) M. STOVELL, Secretary.

APPENDIX No. VI.

SYNOPSIS OF LECTURES BY DR. GIRAUD, ON CHEMISTRY, BOTANY, AND GEOLOGY.

CHEMISTRY.

The course of chemical instruction is commenced with the consideration of the general properties of matter: specific gravity is then specially treated of; after which the phenomena and laws of light, heat, magnetism, and electricity (frictional and voltaic) are considered. Then the subjects of chemical affinity, the laws of combination, and the atomic hypothesis, are studied; the properties of the more important non-metallic and metallic elements, with their compounds. After this, the study of organic chemistry is introduced, so far as relates to important organic compounds used in the arts, and to important organic functions such as the respiration of plants and animals.

The object kept in view in this course of lectures is, first of all, to impart a knowledge of the fundamental *principles* of chemical science, and then to give such an account of chemical *facts* as shall introduce the student to a knowledge of those natural phenomena in which chemical principles are involved; such as the phenomena of meteorology, physical geography, mineralogy, and geology, as well as the general phenomena of the life of organic beings — plants and animals.

Such of the arts and manufactures, as strikingly illustrate chemical principles, are alluded to.

All minute details of chemical processes, tests, and analyses are omitted.

Botany.

The science of botany is taught in the following order :—

A general view of the vegetable kingdom, and of the objects of botanical science.

The internal structure of plants, or *vegetable anatomy.*

The external forms of the organs of plants; such as roots, stems, leaves, flowers, fruits.

The functions of vegetables, or *vegetable physiology.*

An outline of the modern systems of the artificial and natural classification of plants, with illustrations from diagrams, plates, and such living specimens as are procurable.

The object attempted in this course is to present the student with a *general view* of the structure and functions of plants; and of the great natural divisions of the vegetable kingdom.

Geology.

In the course of geological lectures it is proposed, first to point out the nature and objects of geology, its applications to mining, engineering, architecture, agriculture, &c. &c.; then to pass to the consideration of general questions relative to the origin, antiquity, and former conditions of the earth's surface. Lectures will next be given on the mineral ingredients of the earth's crust, or *mineralogy*, with illustrations by means of such specimens as are procurable. Then the four great classes of rocks (aqueous, volcanic, plutonic and metamorphic) will be treated of; and under the head of aqueous rocks, their characteristic fossil organic remains (with specimens) will be noticed, the general principles of zoological classification having been previously explained, as introductory to the study of organic remains.

In conclusion, the following topics will be studied :—

The ancient and modern causes of changes in the earth's surface.

The causes of vicissitudes of climate.

Of former changes in physical geography and climate.

Theory of the progressive development of organic beings at successive geological periods, controverted.

APPENDIX No. VII.

ANNUAL MEETING FOR THE DISTRIBUTION OF SCHOLARSHIPS AND PRIZES.

The annual distribution of Scholarships and Prizes to the successful Students at the late examinations in the Elphinstone Institution and Government Vernacular Schools at the Presidency took place in the Town-Hall, on the afternoon of Saturday the 2nd April. The Meeting was numerously attended, and the large Hall was crowded with pupils and visitors. Amongst others we observed the Honorable Mr. Blane; Sir H. Leeke; Colonels Woodburn, C.B., and Jameson; Majors Grant and Pope; the Reverend Dr. Stevenson; the Reverend Messrs. Anderson, Mitchell, Green, Price, Bowen, Hume, and Rogers; Drs. Morehead, Arbuckle, Giraud, Carter, Watson, Stovell, and Miller; Captains Wallace and Manners; Professor Green; Messrs. Larken, Boswell, Peyton, J. R. Stuart, Corfield, Murphy, Flynn, Jaggonath Sankarsett, Bháu Daji, Manockji Cursetji, Nashirvanji Carsetji, Náráyan Dinnánáthji, Naorozji Fardunji, Mirza Ali Mahomed Khan, Dinshaw Dorabji, Sorabshaw Dossabhái, and many others.

Sir Henry Leeke was pressed into the Chair, the Honorable Mr. Blane stoutly withstanding all the efforts that were made to force that honour upon him. The following letter to the Secretary to the Board of Education, read by the Chairman, will explain the cause of Lord Frederick Fitzclarence's inability to preside at the Meeting.

" My dear Dr. Stovell,—I regret extremely that I shall be unable, in consequence of recent illness, to preside at the meeting to be held to-morrow, for the distribution of Scholarships and Prizes to the Students of the Elphinstone Institution.

" May I beg of you the kindness to convey to the Meeting the assurance of the interest I feel in the purpose for which it is assembled, and the hope I may be permitted to express, that I may have the pleasure of being present on a future occasion.

" Believe me, my dear Dr. Stovell,

" Truly yours,

(Signed) " F. FitzClarence.

" *Friday evening.*

" P. S.—I beg to enclose you my donation for the benefit of the Institution."

Mr. Larken, a Member of the Board of Education, then read to Sir Henry Leeke the following address, drawn up by the President of the Board, to Lord Frederick FitzClarence :—

"To His Excellency Lieutenant General the Right Honorable Lord Frederick FitzClarence, G.C.H., &c. &c.

" My Lord,—Nothing but sore domestic affliction could have prevented my meeting your Lordship to-day, and expressing to you *vivâ voce,* what I am now necessitated to commit to paper; for it was at my suggestion that my colleagues of the Board of Education invited your Lordship to do us the honor of presiding on this occasion.

" I made this proposition, because I know that you are not only master of your honorable scientific profession in all its details, but that you are also the ardent promoter of education of the soldier's offspring, under the conviction that if the ranks of the army are to be filled with men susceptible of a high state of discipline and order, it must be recruited from among those who have been taught, from the impressible days of infancy, to fear God and honour their sovereign ; and we were anxious to engage your sympathy in behalf of scholastic institutions, framed under an abiding sense of the great responsibility attaching to our country, as entrusted by Providence with the government of the extensive regions which constitute British India.

"The Board of Education, which now superintends, under the general orders of the Government, the administration of public instruction throughout the Presidency of Bombay, had its rise as follows:—

"In the year 1820, a Committee of the Bombay Education Society, (which you will the more readily recognize as the Society that watches over the Byculla Schools for the education of the children of British soldiers, and of other Christian boys and girls,) formed a Committee, which was called the 'Native School Book and School Committee.'

"The main object of this Committee was to prepare and provide suitable books of instruction for the use of Native schools in the different vernacular languages, and to establish and improve Native schools; and, two years later, this Committee became a separate Society, denominated the 'Bombay Native School Book and School Society.' It was for some time supported solely by voluntary subscriptions, but an appeal was made to Government for assistance, and in 1824 Government granted an annual allowance of about 6,000 rupees. In 1825, the Society purchased the ground on which the Elphinstone College stands, and the name of the Society was changed to that of the 'Bombay Native Education Society.'

"For several years these Societies laboured under pecuniary and other difficulties, but on the retirement of the Honorable Mountstuart Elphinstone from the Government of this Presidency in 1827, a powerful stimulus was given to the cause of Education. In honor of that illustrious man, whose statue adorns the room in which this exhibition of the fruits of his labour is made to-day, who had governed Bombay seven years, influential Natives in every province on this side of India came forward and raised, in conjunction with Europeans, a durable monument to his memory, in the shape of a subscription to the astonishing amount of nearly £30,000, appropriated to the promotion of Native education, to which great object much of his talents and energy had been devoted. This liberal conduct at once placed the cause on a firm basis. It was determined to appropriate the sum raised, to the foundation of Elphinstone

Professorships for teaching the English language, and the arts, the sciences, and the literature of Europe. Government then came forward, and placed an annual sum of Rupees 44,000 at the disposal of the Directors of education, in support of the Elphinstone Professorships, and for the use of the institutions at the Presidency.

"In 1832, a plan for the establishment of the Elphinstone Professorships was arranged. The Elphinstone College was erected, and a College Council appointed, consisting of a President and eight Members—four Europeans and four Natives. The President and one European member were nominated by Government, the other seven members were elected by the Native Education Society. The connection of this Society with the Elphinstone College, except in possessing this power of election, then ceased. The management of the College, vested in the Council, became subject to the general control of Government. The selection of the two first Professors was placed, as a suitable compliment to him whose name they bore, in the hands of Mr. Elphinstone, and in 1835 Mr. Orlebar and Mr. Harkness arrived—the first as Professor of Mathematics and Natural Philosophy, the second as Professor of General Literature. Mr. Harkness is yet among us, presiding as Principal over the College, which he has seen grow under his hands till he has the proud satisfaction of knowing that he annually sends forth into the world, to take part in the administration of British India, a number of Native youths who need not fear to challenge the Haileybury boys to a contest in any branch of education except the study of Greek and Latin, which has never been introduced here.

"Considerable difficulty was at first experienced in forming classes of pupils sufficiently advanced to attend the lectures of these gentlemen with advantage. The English Schools of the Native Education Society, contrary to the expectations of the founders of the College, failed in proving a nursery for it. The advantages, too, of high acquirements in European learning, were not yet sufficiently understood by the Natives, and the few young men who were desirous of prosecuting their studies, and of attaining supe-

rior proficiency, had not the means of support. This state of matters rendered nugatory for some time the utility of the Professors, and impeded the diffusion of superior education. To obviate this in some degree, College Scholarships were established, it appearing evident that without some encouragement of this kind nothing satisfactory would result.

"The whole subject, however, was brought prominently to the notice of Government at the close of 1839, and it appeared to the Governor in Council that a complete revision of the system was necessary. Taking into consideration the various causes which had led to the want of co-operation between the Society's English School and the Elphinstone College, and with the view of securing that unity of purpose, the want of which had been the chief cause of the unsatisfactory state of matters previously existing, the Government established, in April 1840, the Board of Education, the President and Members becoming at the same time Trustees of the Elphinstone Professorship Funds, as well as of the Funds of the Native Education Society. No change in the constitution of the Board has taken place since. At the time of its formation, the few Government Schools in the different Collectorates were under the management of the Collectors, or of the Superintendent of the Poona College, but on the formation of the Board, all educational institutions connected with Government were placed under the Board.

"The following table will give a comparative view of the number of Schools and Students in 1840, when they first came under the control of the Board, and of the number at the close of the official year in 1852; from which your Lordship will perceive that, from the establishment of the Board of Education in 1840, to the present time—or in the short space of 12 years —the number of Schools has increased from 97 to 245, and the number of Scholars from 5,941 to 13,757:—

	1840.		1852.	
ISLAND OF BOMBAY.	No. of Schools.	No. of Pupils.	No. of Schools.	No. of Pupils.
Elphinstone Institution	1	550	1	832
Vernacular Schools	7	661	7	541
Grant Medical College	..	..	1	61
MOFUSSIL.				
English Schools — Poona	1	119	..	..
English Schools — Tanna	1	77	1	90
English Schools — Panwell	1	10	..	..
English Schools — Surat	..	..	1	331
English Schools — Ahmednuggur	..	..	1	56
English Schools — Rutnagherry	..	..	1	50
English Schools — Ahmedabad	..	..	1	121
English Schools — Broach	..	..	1	93
English Schools — Dharwar	..	..	1	40
Vernacular Schools — 1st Division	27	1866	133	4783
Vernacular Schools — 2nd Ditto	21	1207	39	2534
Vernacular Schools — 3rd Ditto	37	1351	56	3771
Poona Sanskrit College	1	100	1	454
	97	5941	245	13757

" For the last nine years, the Chair which I have now the honor to occupy as President of the Board of Education was filled by Sir Erskine Perry, lately Chief Justice of Her Majesty's Supreme Court of Judicature.

" This gentleman, whose name will descend to posterity second to that of Elphinstone only as the promoter of public education on this side of India, assiduously devoted his leisure hours to the benefit of the country from which he drew his income. Reforms in his own profession, by which the administration of justice has been simplified and rendered more accessible to the poor, and the laying broad and deep the foundation of those principles by which education of an ordinary kind shall be diffused among the peasantry in their mother tongue, and the more advanced and more polished education of Europe rendered accessible to the higher and more intellectual portion of society, were the objects to which he applied his erudition, his talents, and his philanthropy; and that he did not labour in vain is betokened by the impetus that was given to education in his time.

" His administration is distinguished by the following events:—

" 1. Opening of the Grant Medical College in 1845.

" 2. Formation of a Normal Class at the Presidency in 1845.

" 3. Nomination of a Professor of Botany and Chemistry in the Elphinstone Institution in 1846.

" 4. Amalgamation of the Sanskrit College and Poona English School in 1851.

" 5. Establishment of five English and forty-three Vernacular Schools.

" I annex a statement showing that, during Sir Erskine Perry's time, the number of English schools has doubled, and the Vernacular schools have increased from 197 to 245.

" This Presidency has done honor to him and to itself in the expression, which was echoed from Madras, of their gratitude for my predecessor's exertions; and I hope we shall have his name perpetuated among us in connection with his two favourite objects, in the shape of a Professor of Jurisprudence in the Elphinstone College, for which the European and Native inhabitants have subscribed liberally.

" Annexed, also, are statements of the number of public scholars of the other Presidencies, from a glance at which your Lordship will discover that we have much reason for congratulation at the advanced position we hold, as promoters of public instruction in British India.

" I cannot close without allusion, however slight, to the distinctive feature of the Government colleges and schools, which has excited more observation than any other trait. I allude to the instruction being wholly secular. In our own dear Christian land, we are accustomed to see spiritual and secular learning running hand in hand; and it requires a very just appreciation of our position here to reconcile the mind to their separation.

" It is not for us to question the wisdom of that ordinance of man which pledged the British Government in India to universal toleration: it is sufficient that, when the British Government, 35 years ago, acceded to the bulk of the Provinces of this Presidency, it issued a proclamation intimating that 'all religious sects

would be tolerated, and their customs maintained, as far as just and reasonable.'

" For my own part, I believe that Providence dictated this policy, as the means of rivetting the power of England over this country; but it is clear that we cannot expect a blessing to rest upon a violation of the public faith solemnly pledged by conquerors to those submitting to their authority.

" And what, I would ask, is the course to be followed by a great and generous country under such circumstances? Its faith is pledged, and the opinion of its scrupulous good faith is the key-stone of the arch which supports its mighty power over these lands. Surely! surely! there is but one course open.

" We have the subtle Brahmin, the ardent Mahomedan, the meek though zealous Christian Missionary, each and all relying on this promise of non-interference, and pressing the evidence of his respective faith on the attention of the people of India; and when this people look up to the Government and say—'You tolerated all religions: all cannot be true—show us what is true,' the Government can only answer: 'Our own belief is known to you: we are ready to give a reason for the faith that is in us, and we will place you in a situation by which you may judge whether those reasons are convincing or not. We will teach you History: by the light of its two eyes, Chronology and Geography, you will therein discover the history and system of every religion; we will expand intellectual powers, to distinguish truth from falsehood by the aid of logic and mathematics; and we will, in the sciences of astronomy, geology, chemistry and botany, lay open to you all we know of the firmament above, of the nature of the earth on which we live, and the organization of the flowers which enamel its surface; and, with your perceptions of the power and wisdom of your God and ours, thus cleared and enlarged, we may safely leave you to distinguish truth for yourselves.'

" Descending to secondary considerations, it may be observed that this is the only course for which we could engage the co-operation of the higher and most influential and intellectual classes of the Natives: each member of the Board of Education, be he Christian, Mahomedan, Hindu, or Parsi, is engaged in

one common object, viz. the advancement of truth ;—we differ only as to that which is truth, and, like other discreet men, we never talk on that respecting which we are sure to differ.

" It has been said that we ought to have a Christian spiritual teacher for Christian scholars ; but those who urge this plan have not considered all the difficulties of our position : it would result in our having spiritual teachers of all religions ; and we therefore take our stand on the only safe ground, that of clear, broad neutrality, without subterfuge or evasion.

" But it is said, again, that our system produces Deists : only twelve years is not a sufficiently long trial on which to declare that our intellectual vineyard will only produce wild grapes, and I know within 100 yards of my own dwelling that of three young men reading for holy orders ; one was educated by the Government schools ; and I am told that in Bengal, some of those who have become eminent as Native clergymen were, before their conversion, trained to high proficiency in learning and science in the Government schools and colleges. But suppose we do produce Deists, are not the avowed champions of Christianity liable to do the same? Till the contrary has been demonstrated, I must take the liberty of believing that they are. But what then? Is it not clear gain to exchange, for a land full of idols and a mind engrained with idolatry, a people who no longer worship the work of their own hands, that their own fingers have made,—who have cast their idols to the moles and to the bats, and say, they be no gods which are made with hands ; and who are prepared to exercise the same judgment that has eschewed these things, in weighing the evidence on which another system is pressed on their attention.

" We profess no antagonism to Missionaries of any shade, and I have it under the hand of a Churchman and Missionary, for whose piety and judgment I have the greatest admiration and respect, that he 'wishes all success to the Government schools, and only wishes they were greatly multiplied throughout the whole country.' I should think, indeed, that all Missionaries should regard us as their pioneers who lay bare the groves, and uproot the briars of an ancient idolatry, and prepare for them a soil which will bring forth a hundred fold into their garner.

"I have thus, my Lord, attempted to sketch, faintly and imperfectly, the origin, progress, and distinctive feature of the public colleges and schools of the Government of Bombay; and I trust you will consider that we have invited you to grant the sanction of your presence to institutions that are worthy of the power, the possession, and the reputation of England in these her remote dependencies.

I have the honor to be,
My Lord,
Your Lordship's most faithful and obedient Servant,
"JOHN WARDEN.

"*2nd April* 1853."

Statement showing the Number of English and Vernacular Colleges and Schools under the Board of Education in 1844, *and a Corresponding Statement as they stood in* 1852, *during the time Sir Erskine Perry was President.*

	Number of Schools.		Number of Scholars.	
ENGLISH COLLEGES AND SCHOOLS.	1844	1852	1844	1852
Elphinstone Institution	1	1	519	832
Poona College	1	1	199	454
Poona English School	1		148	
Grant Medical College	..	1	..	61
Ahmednuggur English School	..	1	..	56
Surat ditto	1	1	185	331
Broach ditto	..	1	..	93
Ahmedabad ditto	..	1	..	121
Dharwar ditto	..	1	..	40
Rutnageri ditto	..	1	..	50
Tanna ditto	1	1	60	90
VERNACULAR SCHOOLS.	5	10	1,061	2,128
At the Presidency	7	7	718	541
1st Division	49	74	3,303	3,622
2nd Division	26	39	1,715	2,534
3rd Division	45	56	2,747	3,771
Poorundhur village schools	65	59	1,429	1,161
Vernacular	92	235	9,912	11,629
English	5	10	1,061	2,128
Total	197	245	10,973	13,157

Bengal Presidency.

Statement exhibiting the Number of Students in the Bengal Presidency, taken from the Report of the Council of Education, dated March 31st 1852.

	No. of Students.
Students receiving English Education in the different Colleges and Schools in the Presidency of Bengal in 1852	4,241
Students do. Vernacular do. do. including Sanskrit, Persian, and Arabic	5,192
Total.....	9,433

North-Western Provinces.

Statement exhibiting the Number of Students in the North-Western Provinces, taken from the Report dated Agra, April 30th 1849.

	No. of Students.
Benares College	230
Agra College	408
Delhi College	339
Roorkee College (Engineer)	15
Barrielly School	219
Saugor School	217
Jubbulpoor School	154
Total.....	1,582*

Madras Presidency.

Number of Students (both English and Vernacular) in the Madras Presidency, taken from the Report of the President and Governors of the Madras University, dated March 26th 1852 182

* 1,052 of this number are learning English.

Professor Harkness then read a summary of the report of the Elphinstone Institution for the year 1852.†

The Scholarships and Prizes were then distributed among the successful Students by Sir Henry Leeke, who closed the Meeting with a few words of encouragement to the young men, whom he exhorted to advance in learning, and to set an example even to Europeans.—*Bombay Times.*

† This is omitted, as the report in full will be found in another part of the Appendix.

APPENDIX No. VIII.

PROGRAMME OF THE ANNUAL EXAMINATION OF THE POONA COLLEGE.

ENGLISH DEPARTMENT.

School Division.

Days.	Class and Teacher.	Studies.
Wednesday, 1st Dec.	10*th Class* in four Divisions. Balkrishna Sakhárám.	McCulloch's 1st and 2nd Reading Books, and 20 pages of the 3rd Reading Book; School Dialogues.
	9*th Class.* Pándurang Bállájí.	McCulloch's 1st and 2nd Reading Books; School Dialogues, 7 Lessons; Third Reading Book, 62 pages.
	8*th Class.* Atmárám Pátkar.	The 3rd Reading Book, the whole; McCulloch's Series of Lessons, 25 pages; Reid's Grammar, 15 pages; Writing from Dictation.
Thursday, 2nd Dec.	7*th Class.* Yadneshwar Dádájí.	The 3rd Reading Book, 3rd Section revised; Series of Lessons, 50 pages; Reid's Grammar as far as the auxiliary verbs; Chambers' Geography; Map of Asia; Latin and Greek Roots; Writing from Dictation.
	6*th Class.* Parasharám Shástrí.	The 3rd Reading Book revised from the 2nd Section; Series of Lessons, 90 pages; Reid's Grammar; Latin and Greek Roots (of the Series of Lessons) as far as the letter C; Chambers' Geography, 10 pages; Parsing; Dictation.
	5*th Class.* Bábú Joshí.	The 3rd Reading Book revised; Series of Lessons, 2nd and 3rd Sections; Chambers' Geography, 13 pages; and Map of Asia; Reid's Grammar; Catechism of Maráthá History, 15 pages; Latin and Greek Roots, as far as the letter N.

English Department *(continued)*.

Days.	Class and Teacher.	Studies.
Friday, 3rd Dec.	*4th Class.* Náná Chitnís.	Series of Lessons, 200 pages; Chambers' British Empire, to the reign of Edward VI.; Catechism of Maráthá History; Chambers' Geography; Reid's Grammar; Latin and Greek Roots; Dictation.
	3rd Class. Govind Laximan.	Series of Lessons, 4 Sections; Chambers' British Empire; Exemplary Biography, 60 pages; Catechism of Maráthá History; Rules of Syntax, and Latin and Greek Roots out of McCulloch; General Geography of the four Quarters; Particular Geography of England and Hindustán; Dictation; Parsing.
Saturday, 4th Dec.	*2nd Class.* The Translation Exhibitioners.	Series of Lessons, 2nd, 3rd, and 4th Sections (excepting the poetical pieces in the 4th Section); Revisal of the Prose Lessons of the first 50 pages of McCulloch's Course of Reading; Chambers' British Empire, from the reign of George III. to that of Victoria; Marshman's India, from the 7th Chapter to the 17th; Catechism of Maráthá History; Reid's Grammar, to the Rules of Syntax; Latin and Greek Roots as far as the letter P; some Affixes and Prefixes; Dictation.
Monday, 6th Dec.	*1st Class.* Vishnu Paut Bhidé.	The Course of Reading; Chambers' British Empire; Murray's India, 3 Chapters; Latin and Greek Roots from McCulloch; Rules of Syntax, Construction and Arrangement; General Geography of the four Quarters; Geography of England and Hindustán; Exercises in correcting false Grammar; Parsing; Dictation.

Arithmetical and Mathematical Classes.

Days.	Class and Teacher.	Studies and Text Books.
Friday, 7th Dec.	*7th Class.* Yadneshwar Dádájí.	Reduction; Compound Addition, Substraction, Multiplication, Division; Simple Proportion; Compound Proportion.
Wednesday, 8th Dec.	*6th Class.* Bábá Joshí.	Compound Multiplication and Division; Supplement to do.; Simple Proportion; Compound Proportion; Partnership, the half.
	5th Class. Pándurang Bálájí Sonár.	Simple Proportion; Compound Proportion; Vulgar Fractions; Simple Interest; Partnership; Decimal Fractions; Square and Cube Roots.
	4th Class. Atmárám Pátkar.	Reduction of Decimals; Addition, Multiplication, Division of Decimals; Proportion; Extraction of the Square and Cube Roots.
	3rd Class. Náná Chitnís.	Gray's Arithmetic, from the Proportion of Fractions to the end; Young's Algebra as far as Simple Equations, containing one unknown quantity, with extra examples from Chambers.
	2nd Class. Govind Laximan.	Algebra as far as Simple Equations; Twenty Propositions of the First Book of Euclid.
Thursday, 9th Dec.	*1st Class.* Vishnu Pant Bhidé.	Simple Equations with three unknown quantities; 3 Books of Euclid.

College Division.

Days.	Class.	Subjects, Text Books, &c.
Thursday, 9th Dec.	*Senior Class.*	Paper. English Essay.
	Junior Class.	Paper. Ditto.
Friday, 10th Dec.	*Senior Class.*	Paper. Maráthá Essay.
	Junior Class.	Paper. Maráthá Essay; Oral examination in Natural Philosophy and Chemistry.
Saturday, 11th Dec.	*Senior Class* in the Forenoon.	Oral examination in English Poetry; Works read—Shakspeare's Hamlet.
	Junior Class, Afternoon.	Oral examination in English Poetry; Poetical Pieces in the Course of Reading.

College Division *(continued)*.

Days.	Class.	Subjects, Text Books, &c.
Monday, 13th Dec.	*Senior Class.*	Oral examination in Mathematics; Analytical Geometry of two and three dimensions; Differential Calculus; Statics and Dynamics.
	Junior Class.	Paper on points of Idiom, Construction, and Translation.
Tuesday, 14th Dec.	*Senior Class.*	Paper on Points of Idiom, &c.
	Junior Class.	Oral examination in Mathematics; Plane Trigonometry; Mensuration of heights and distances; Analytical Trigonometry; Conic Sections; Parabola; Ellipse; Algebra; Binomial Theorem; Application of Binomial Theorem to the development of Series; Exponential Theorem; Logarithms; Algebraical Formula for finding the logarithm of any number; Construction of a Table of Logarithms; Compound Interest and Annuities by Logarithms.
Wednesday, 15th Dec.	*Senior Class.*	Mathematical Paper—subjects as above.
	Junior Class.	Mathematical Paper—subjects as above.
Thursday, 16th Dec.	*Senior Class* in the Forenoon.	Oral examination in History; Hume's Dynasty of the Stuarts generally, but particularly the reign of Charles I.
"	*Junior Class*, Afternoon.	Oral examination in History; Murray's India, 13 Chapters generally, but especially the first 8 Chapters.
Friday, 17th Dec.	*Senior Class* in the Forenoon.	Oral examination in Political Economy.
	Junior Class, Afternoon.	Ditto ditto.
Saturday, 18th Dec.	*Senior Class.*	Paper in Logic.
	Junior Class.	Ditto.
	Principal's Class.	Ballantyne's First Lessons in Sanskrit Grammar, and the Sanskrit Reader.

VERNACULAR DEPARTMENT.

Classes for Reading, Grammar, &c.

Students from the English Department.

Day.	Classes.	Studies.
7th Dec.	*8th Class.* Vináyak Shástrí Petkar.	Nìtì Darpan.
	7th Class. Bál Shástrí Ghánékar.	Æsop Nìtì.
	6th Class. Vináyak Pant Gokhle.	Æsop Nìtì; Bál Wyákaran; Catechism of Maráthá History, 2 Chapters; Parsing; Dictation.
8th Dec.	*5th Class.* Bháu Shástrí Theurkar.	History of the Maráthás, 8 Sections; Readings from Dádobá Pàndurang's Grammar; Parsing; Dictation.
	4th Class. Narsinh Shástrí Ok, Exhibitioner.	Bál Mitra, 1st vol.; Parsing and explanation of Rules of Grammar; Dictation; Filling up Elliptical Writing.
	3rd Class. Mahádeo Shástrí, Exhibitioner.	Catechism of Maráthá History; Bál Wyákaran; History of India, 30 pages; Parsing; Dictation.
	2nd Class. Náráyan Shástrí, Exhibitioner.	Same as the last.
9th Dec.	*1st Class.* Acting Assist. Professor Krishna Shástrí.	History of England, 12 Chapters; Readings from Dádobá's Grammar; Parsing; Dictation; Filling up Elliptical Writing; Correcting wrong Sentences.

Translation Classes.

Day.	Classes and Teacher.	Studies.
9th Dec.	*6th Class.* Parashurám Shástrí.	1st Section of McCulloch's 3rd Reading Book.
10th Dec.	*5th Class.* Bháu Shástrí.	1st Section of the Series of Lessons.
	4th Class. Narsinh Shástrí.	2nd and 3rd Sections of the Series of Lessons.
	3rd Class. Mahádeo Shástrí.	3rd and 4th Sections of the Series of Lessons.
	2nd Class. Náráyan Shástrí.	Ditto ditto.
13th Dec.	*1st Class.* Acting Assist. Professor Krishna Shástrí.	The Moral, Poetical, and Miscellaneous Pieces in McCulloch's Course of Reading.

Classes of Arithmetic and Mathematics.

Junior Students of the English Department and Students of the Sanskrit Department.

Day.	Classes and Teacher.	Studies.
14th Dec.	*6th Class.* A Student from the Sanskrit Dept. in rotation.	Integral Arithmetic, as far as Simple Division.
	5th Class. A Student of the 2nd Division of the Normal Department in rotation.	Integral Arithmetic.
	4th Class. A Student of the 1st Division of the Normal Department in rotation.	Vulgar Fractions; Decimal Fractions.
15th Dec.	*3rd Class.* Vináyak Pant.	Vulgar Fractions; Decimal Fractions.
	2nd Class. Vishnu Pant.	Algebra as far as Surds; 25 Theorems from Hutton.

Classes of Nagdi Mulki, or Kacheri Accounts.

Students from the English Department and from the Sanskrit Department.

Day.	Classes and Teacher.	Studies.
18th Dec.	*3rd Class.* Vináyak Pant.	8 Pages of Mauje Wahí, with explanations.
"	*2nd Class.* Vishnu Pant.	10 Pages of Mauje Wahí, with explanations.
	1st Class. Vináyak Pant.	Mauje Wahí, the whole.

NORMAL DEPARTMENT.

Day.	Classes and Teacher.	Subjects, Text Books, &c. Classes of English.
7th Dec.	*Junior Division.* Bháu Shástrí Theurkar.	McCulloch's 3rd Reading Book; School Dialogues; Parsing; Dictation.
8th Dec.	*Senior Division.* Acting Assist. Professor Krishna Shástrí.	Series of Lessons; Reid's Grammar, the whole, except Prosody; Parsing; Dictation.

VERNACULAR STUDIES.

Days.	Class and Teacher.	Subjects, Text Books, &c. Classes of English.
2nd Dec.	*Both Divisions.*	Vernacular Essay.
6th Dec.	*Both Divisions.*	Paper on points of Idiom and Grammar.
15th Dec.	*Both Divisions.* Vishnu Pant.	Forenoon.—Oral examination in Reading, Grammar, Geography, &c.
	Assistant Professor Keru Pant.	Afternoon.—Oral examination in Natural Philosophy and Chemistry; Elementary knowledge of Mechanical powers; Hydrostatics and Pneumatics; General knowledge of the Rudiments of Chemistry.
16th Dec.	*Senior Division.* Assistant Professor Keru Pant.	Mathematical Paper; Plane and Analytical Trigonometry, with application to the measurement of heights and distances; Use of different Trigonometrical Scales; Spherical Trigonometry, with its application to some Problems in Astronomy.
18th Dec.	*Senior Division.* Assistant Professor Keru Pant.	Oral examination in Mathematics—subjects as above.
	Both Divisions. Vishnu Pant.	Examination in Nagdí Mulkí, or Kacheri Accounts.
20th Dec.	*Junior Division.* Vináyak Pant.	Oral examination in Mathematics; Six Books of Euclid; Hutton's Geometry, 90 Problems; Trigonometry as far as the 4th Theorem in Hutton, and right angled triangles in Young; Use of Logarithms.
	Both Divisions. Assistant Professor Krishna Shástrí.	Oral examination in Political Economy; Lectures on General Principles, particularly on the subjects contained in the 1st vol. of Mill.
21st Dec.	*Both Divisions.* Vishnu Pant.	Forenoon.—Oral examination in History; Bál Shástrí's India, the whole.
	Both Divisions. Vishnu Pant.	Afternoon.—Paper on History—subject as above.

SANSKRIT DEPARTMENT.

Classes.	Subjects and Text Books.
NYAYA, OR LOGICAL PHILOSOPHY.	
1st *Class.*	Gadádhari Avyava Pratidgnyá Lakshan 2,200 Granth.
2nd *Class.*	Gadádhari Chaturdash Lakshni, Mishra Lakshan 1,500 Granth.
3rd *Class.*	Jágdeshi 800 Granth; Dinkari Anumánkhand 400 Granth; Tark Prakásh, Anmánkhand, 200 Granth.
4th *Class.*	Gadádhari 2,000 Granth.
5th *Class.*	Gadádhari 1,000 Granth; Sámánya Nirukti 300 Granth.
6th *Class.*	Tarka Sangraha 200 Granth; Muktáwali 800 Granth.
7th *Class.*	Nyáya Ratna 600 Granth.
8th *Class.*	Raghu 1st Canto 200 Granth; Amarkosh 1st Kánd 300 Granth.
WYAKARAN, OR GRAMMAR.	
1st *Class.*	Shekhar 2,000 Granth.
2nd *Class.*	Kaumúdi, Dash Guni, about 2,000 Granth.
3rd *Class.*	Kaumúdi from the beginning 500 Granth.
4th *Class.*	Mágh 2nd Canto.
5th *Class.*	Kirát 2nd Canto.
6th *Class.*	Raghu 3rd Canto.
7th *Class.*	Amarkosh 3rd kánd.
8th *Class.*	Rupáwali and Samáschakra.
DHARM SHASTRA, OR LAW.	
1st *Class.*	Nirnaya Sindhu 2,000 Granth.
2nd *Class.*	Nirnaya Sindhu 2,500 Granth.
3rd *Class.*	Mitákshará Wyawahár 4,000 Granth.
4th *Class.*	Mayukh 2,500 Granth.
5th *Class.*	Manu Smiti 200 Granth; Raghu 1st Canto Total 500 Granth. [Granth.
6th *Class.*	Raghu 1st Canto and Kirát 1st Canto 400
7th *Class.*	Amarkosh 400 Granth.
8th *Class.*	Rupáwali Samáschakra 200 Granth.
KAVYA AND ALANKAR, OR POETRY AND RHETORIC.	
1st *Class.*	Kávya Prakúsh 1,000 Granth.
2nd *Class.*	Kuwalayánand 1,000 do.
3rd *Class.*	Pratáp Rudra 2,000 do.
4th *Class.*	Kádumbari 2,000 do.
5th *Class.*	Rámáyan Champu 1,000 Granth.
6th *Class.*	Bhárat Champu 2,000 do.
7th *Class.*	Kirát 2 Cantos and Magh 2 Cantos.
8th *Class.*	Raghu 2 Cantos.
9th *Class.*	Amarkosh 300 Granth; Rupawali and Samáschakra.
10th *Class.*	Sanscrit Æsop's Fables.
11th *Class.*	Translation of Æsop's Fables, and readings in the Purán.

BRANCH SCHOOL.

Days.	Class and Teacher.	Studies.
21st & 22nd December.	*4th Class 3rd Division.* Rambháji Thorat.	McCulloch's 1st Reading Book, the whole.
	4th Class 2nd Division. Rambháji.	McCulloch's 2nd Reading Book, 30 pages; School Dialogues, the whole.
	4th Class 1st Division. Rambháji.	McCulloch's 3rd Reading Book, 50 pages; School Dialogues, the whole; A little knowledge of Grammar to distinguish the parts of speech; Geography of Europe and Asia.
	3rd Class. Kondu Amrut.	McCulloch's 3rd Reading Book, the whole; Reid's Grammar, 30 pages; Geography of Asia and Europe.
	2nd Class. Vishwanáth Karmarkar.	McCulloch's Series of Lessons, 2nd and 3rd Sections; Catechism of the Maráthá History, 28 pages; Chambers' Geography, Asia and Europe; Davy's History of England to the end of Edward Third's Reign; Reid's Grammar, 39 pages; Latin and Greek Roots from Series of Lessons; Writing from Dictation.
	1st Class. Sakhárám Bálkrishna.	Marshman's History of India, 9 Chapters; Chambers' British Empire, 90 pages, to the end of James the First's Reign; Catechism of the History of Maráthá, to the end; Reid's Geography, Europe, Asia, Africa, and America, with the particular Geography of the British Isles, and Hindustán; Problems on the use of the Terrestrial Globe; McCulloch's Grammar, 142 pages; Latin and Greek Roots; 25 pages of Green's Phrase Book; Writing from Dictation.

Arithmetic and Mathematics.

Days.	Class and Teacher.	Studies.
21st & 22nd December.	*4th Class 2nd Division.* Rambháji.	Numeration, Multiplication Tables, and Addition.
	4th Class 1st Division. Rambháji.	Subtraction, Multiplication, and Long Division.
	3rd Class. Kondu Amrut.	Multiplication and Long Division.
	2nd Class. Vishwanáth.	Reduction, Compound Addition, and Subtraction.
	1st Class 2nd Division.	Simple and Compound Proportion, and Vulgar Fractions, to the end.
	1st Class 1st Division. Sakhárám Bálkrishná.	Young's Algebra: Simple Equations containing one, two, and three unknown quantities, and Questions producing Simple Equations involving one and two unknown quantities.

APPENDIX No. IX.

Return of Government Vernacular Schools in the 1st Division, comprising the Collectorates of Poona, Ahmednuggur, Sholapur, and Khandeish, and the Districts of Satara, under the Superintendence of Máhádeo Govind Shástrí, Esq.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils: On Register.	No. of Pupils: Present at Examination.	Name of Master, and Assistant Master.	Caste.	Pay per Mensem.	Length of Service.	When last examined.	Remarks. Note.—S. denotes School, M. Master.
		Poona Collectorate.						*Rs. a.*	*y. m.*		
1	1826	Poona, No. I....	80,000	102	91	Keshava Shivarám	Brahmin ..	25 0	4 6	Sept 1852	A first-rate teacher, lately appointed Master.
						Bálúji Rámchandra	Ditto ..	12 0	0 11	....	A very promising teacher.
						Bháskar Laxumon.....	Ditto ..	5 0	0 2	....	Newly appointed.
						Náro Vithal Phadke.....	Ditto ..	5 0	0 2	....	Do. do.
2	1830	Poona, No. II....		87	81	Hari Rámchandra.....	Ditto ..	15 0	5 1	Sept 1852	S. and M. both good.
3	1830	Poona, No. III...		103	95	Venáyek Sakhárám	Ditto ..	20 0	11 11	Do. do.	S. in good order.
						Hari Vithal.....	Ditto ..	5 0	0 2	....	Newly appointed..
4	1830	Talegaum	4,327	62	57	Máhádáji Govind	Ditto ..	12 0	13 11	Sept 1852	S. in tolerable order.
5	1844	Chinchúr.....	2,881	42	36	Moro Bábúrao Apte	Ditto ..	10 0	8 3	Do. do.	Do. do.

6	1842	Shivapúr	2,365	61	52	Govind Máhádeo	Ditto ..	10	0	13	0	Oct	do.	Do. do. [ferent.
7	1826	Sássúr	6,848	67	60	Vithal Rámchandra	Ditto ..	15	0	13	11	Do.	do.	M. inattentive. S. indif-
8	1836	Súpe	3,513	50	45	Ganesh Káshináth	Ditto ..	10	0	16	5	Do.	do.	M. wanting in tact. S. indifferent.
9	1847	Baramati.....	4,000	64	61	Ganesh Hari	Ditto ..	10	0	5	10	Do.	do.	M. and S. both good.
10	1836	Indapúr	8,311	51	44	Laxumon Atmárám	Ditto ..	10	0	0	1	Do.	do.	M. newly appointed.
11	1845	Pempalvandi	3,187	43	32	Makúnd Trimbak	Ditto ..	12	8	14	11	Mar	1853	M. lately transferred from Junir.
12	1845	Hivari	1,296	30	29	Govind Náráyan.....	Ditto ..	10	0	10	5	Do.	do.	Second-rate teacher. S. tolerable.
13	1839	Junir	14,180	121	97	Náro Bálcrishná.....	Ditto ..	20	0	4	7	Do.	do.	A first-rate teacher, lately transferred from the Elphinstone Institution.
14	1839	Ghore	4,555	47	29	Rámchandra Náráyan	Ditto ..	12	0	12	4	Do.	do.	S. in tolerable order.
15	1847	Avasari	2,425	42	34	Dámodhar Vishnu.....	Ditto ..	10	0	12	9	Do.	do.	M. lately transferred from S. at Mallegaum.
16	1839	Kher	4,000	50	36	Govind Ballál Bápat.....	Ditto ..	12	8	16	8	Do.	do.	S. in tolerable order.
17	1842	Chás	1,063	35	18	Bálcrishná Govind.....	Ditto ..	10	0	10	7	Do.	do.	S. and M. both good.
18	1845	Kadús	6,360	42	37	Rámchandra Náráyan	Ditto ..	12	0	11	2	Do.	do.	One of the best schools in the division.
19	1848	Chákan	2,600	77	49	Báláji Máhádeo.....	Ditto ..	10	0	4	6	Do.	do.	An excellent teacher and school.
20	1840	Paud	1,290	38	28	Raghunáth Rámchandra.. ..	Ditto ..	10	0	15	6	May	1850	No report received.
		Ahmednuggur Collectorate.												
21	1826	Ahmednuggur, No. I.....	25,000	95	76	Vásúdeva Bhikáji.....	Ditto ..	19	8	4	6	Jan	1853	A first-rate teacher, lately appointed M.
22	1832	Ahmednuggur, No. II.....		65	57	Rámcrishná Sadáshiva..... ..	Ditto ..	19	8	22	11	Do.	do.	S. in tolerable order.
23	1826	Ditto, No. III.		68	51	Krishnáji Gaoronáth	Ditto ..	14	0	0	1	Do.	do.	M. newly appointed.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils		Name of Master, and Assistant Master.	Caste.	Pay per Mensem.		Length of Service.		When last examined.	Remarks. Note.—S. denotes School, M. Master.
				On Register.	Present at Examination.								
		Ahmednuggur Collectorate (continued).						*Rs.*	*a.*	*y.*	*m.*		
24	1845	Karjat	4,229	48	44	Govind Krishná	Brahmin	10	0	3	6	Dec 1852	S. less satisfactory than last year.
25	1849	Kharde	6,339	41	37	Rámchandra Balvant	Ditto	10	0	4	10	Do. do.	Second-rate teacher. S. unsatisfactory
26	1841	Jamkhed	3,735	46	38	Pándúrang Sakhárám	Ditto	10	0	12	3	Do. do.	S. in tolerable order.
27	1842	Parnair	3,890	51	51	Bálcrishná Govind	Ditto	10	0	0	10	Do. do.	M. newly appointed. S. improving.
28	1841	Rahuri	2,750	67	59	Keshava Krishná	Ditto	10	0	8	9	Jan 1853	S. not in a satisfactory state.
29	1848	Korhale	2,100	43	41	Náro Malhár	Ditto	10	0	13	1	Do. do.	M. diligent, and S. well managed.
30	1844	Rahate	2,000	39	32	Raghunáth Rámchandra	Ditto	10	0	16	6	Do. do.	M. lately transferred from S. at Paud.
31	1846	Púntambe	3,346	45	34	Laxumon Janárdhan	Ditto	15	0	11	5	Do. do.	One of the best S. and M.
32	1846	Kopargaum	4,565	59	51	Vithal Atmárám	Ditto	10	0	7	1	Do. do.	S. in excellent order.
33	1837	Yoleh	12,259	87	66	Náro Vithal	Ditto	19	8	15	9	Do. do.	S. in tolerable order.
34	1844	Chandvad	5,400	81	75	Báláji Bápúji	Ditto	12	8	13	10	Feb do.	S. not in a satisfactory state.
35	1845	Sukene	2,200	40	34	Bháskar Máhádeo	Ditto	10	0	5	2	Do. do.	Do. do.
36	1847	Dindori	2,225	55	54	Máhádeo Janárdhan Neneh	Ditto	10	0	5	5	Do. do.	S. much improved during the year.

37	1826	Nasik, Maráthi...	22,575	207	185	Vithal Bápúji.....	Ditto ..	24	8	20	9	Do.	do.	Largest S. in the division.
						Laxumon Narsing.....	Ditto ..	20	0	0	10	....		An able teacher lately appointed.
						Trimbaka Parashrám	Ditto ..	6	0	5	7	....		Industrious and steady.
38	1845	Nasik, Hindustáni.		32	26	Máhomed Hussen	Musalman .	20	0	10	0	Jan	1853	S. in bad order.
39	1836	Trimbak	3,511	75	57	Vánînaji Trimbak	Brahmin ..	10	0	9	9	Do.	do.	2nd rate teacher. S. satisfactory.
40	1844	Sinnar	7,000	41	35	Náro Bhikáji.....	Ditto ..	15	0	26	9	Do.	do.	S. in an unsatisfactory state.
41	1847	Vavi.....	1,900	46	39	Rámchandra Trimbak.....	Land ...	10	0	3	6	Mar	do.	M. diligent. S. in good order.
42	1834	Sangamner, Mar.	7,495	111	90	Rágho Máhádeo.....	Brahmin ..	20	0	13	2	Do.	do.	M. and S. both good.
43	1845	Sangamner, Hin.		29	24	Shaik Máhomed.....	Musalman .	10	0	6	10	Do.	do.	S. in tolerable order.
44	1845	Dandarphal.....	1,800	44	41	Rámchandra Dinkar.....	Brahmin ..	10	0	8	3	Do.	do.	S. less satisfactory than last year.
45	1832	Akoleh.....	3,445	84	70	Pándurang Trimbak Bowálkar.....	Ditto ..	30	0	22	9	Do.	do.	S. and M. both excellent.
46	1838	Kotul	2,210	62	50	Vishnu Vithal.....	Ditto ..	10	0	3	9	Do.	do.	M. lately appointed to this S.
		Sholapoor. Collectorate.													
47	1827	Sholapoor	30,812	91	90	Janárdhan Rámchandra	Ditto ..	21	0	15	3	Nov	1852	M. industrious. S. satisfactory.
						Govind Ganesh.....	Ditto ..	10	0	1	8	....		Pains-taking and zealous teacher.
48	1846	Charchan	3,062	37	29	Raghúnáth Trimbak	Ditto ..	12	0	7	1	Oct	1852	S. not very satisfactory.
49	1840	Mangoli	5,000	31	20	Krishnáji Apáji	Ditto ..	10	0	12	4	Do.	do.	Do. do.
50	1848	Bhagevadi	3,000	22	20	Shaikh Nabu	Musalman .	8	0	4	7	Nov	do.	An unsatisfactory S.
51	1846	Mudebehal	1,945	35	33	Vishnu Raghunáth	Brahmin ..	10	0	4	2	Do.	do	M. and S. both good.
52	1846	Hipargi, Can.....	2,822	60	49	Krishnáji Rámchandra.....	Ditto ..	10	0	4	3	Do.	do.	Do. do.
53	1846	Shindgi	2,586	27	26	Raghunáth Eshwant	Ditto ..	10	0	4	3	Do.	do.	S. not in a satisfactory state.
54	1846	Almel	4,100	32	29	Govind Pándúráng	Ditto ..	10	0	7	1	Do.	do.	S. in tolerably good condition.
55	1851	Indi.....	3,152	55	51	Náro Gangádhar.....	Ditto ..	10	0	7	0	Do.	do.	Do. do.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils		Name of Master, and Assistant Master.	Caste.	Pay per Mensem.		Length of Service.		When last examined.	Remarks. Note.—S. denotes School, M. Master.
				On Register.	Present at Examination.								
		Sholapoor Collectorate (continued).						*Rs.*	*a.*	*y.*	*m.*		
56	1836	Mohol	5,000	58	41	Hari Keshava	Brahmin ..	12	0	17	5	Nov 1852	M. industrious. S. well-conducted.
57	1836	Madhe	5,300	70	53	Bábji Krishná	Ditto ..	15	0	10	6	Do. do.	S. in very good order.
58	1849	Vairag	9,032	42	36	Náro Raghunáth	Ditto ..	10	0	3	10	Dec do.	S. in a satisfactory state.
59	1831	Barsi	9,807	93	85	Rámcrishná Raghunáth	Ditto ..	20	0	16	6	Do. do.	S. not in a satisfactory state.
60	1846	Karmala	6,000	59	57	Raghunáth Bháskar	Ditto ..	12	8	14	5	Do. do.	S. improved during the year.
		Khandeish Collectorate.											
61	1820	Dhulia	10,669	138	126	Bálcrishná Trimbaka	Ditto ..	25	0	14	5	Feb 1853	One of the best S. and M.
						Vishnu Trimbaka	Ditto ..	12	0	3	11	....	An able teacher lately transferred from S. at Sassur.
62	1847	Mallegaum	7,393	83	72	Bálcrishná Bábáji	Ditto ..	20	0	0	10	Jan 1853	First-rate teacher newly appointed.
63	1843	Erandole	8,148	111	106	Parshotam Atmárám	Ditto ..	12	0	10	4	Do. 1852	S. not examined during the year.
64	1846	Jamnair	5,500	44	35	Trimbaka Mahipat	Ditto ..	12	8	7	1	Do. do.	Do. do.

65	1848	Naumpur	2,125	28	23	Hari Bhikáji	Ditto ..	10	0	4	3	Do.	do.	Do.	do.
66	1848	Betavad.....	1,900	55	50	Ganesh Malhár	Ditto ..	10	0	3	10	Do.	do.	Do.	do.
67	1848	Zaikara	2,200	55	55	Rámchandra Venáyek	Ditto ..	10	0	3	10	Do.	do.	Do.	do.
		Districts of Satara.													
68	1852	Sattara No. I....	28,348	86	..	Máhadoráo Rámchandra....	Ditto ..	25	0	0	4	Do.	do.	M. newly appointed.	
69	1853	Sattara No. II...		..	..	Amritráo Hari.....	Ditto ..	10	0	0	4	Do.	do.	Do.	do.
70	1853	Wai	10,980	..	..	Ganesh Rámchandra.....	Ditto ..	10	0	0	1	Do.	do.	Do.	do.
						Bháu Sakhárám Joshi.....	Ditto ..	30	0	0	1	Do.	do.	Do.	do.

APPENDIX No. X.

Return of Government Vernacular Schools in the 2nd Division, comprising the Collectorates of Surat, Broach, Ahmedabad, and Kaira, under the Superintendence of James Graham, Esq.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils		Name of Master, and Assistant Master.	Caste.	Pay per Mensem.		Length of Service.		When last examined.	Remarks. Note.—S. denotes School, M. Master.
				On Register.	Present at Examination.								
		Surat Collectorate.						*Rs.*	*a.*	*y.*	*m.*		
1	1826	Surat No. I.....	90,000	130	115	Tripurashankar Mánishankar.	Brahmin ..	25	0	0	1	Nov 1852	M. lately transferred from S. No. 3. S. in good order.
						Hargovandás Káhándás	Vania.....	5	0	0	1	....	Lately appointed.
2	1826	Surat No. II. ..		76	72	Pránshankar Umánáth	Brahmin ..	19	0	26	0	Nov 1852	S. in tolerable order.
3	1843	Surat No. III. ..		89	83	Narbadáshankar Lálshankar..	Ditto ..	15	0	0	7	Do. do.	M. newly appointed to this S.
4	1847	Surat No. IV. ..		72	64	Ratanshankar Mánishankar..	Ditto ..	15	0	5	0	Do. do.	S. greatly improved.
5	1848	Surat No. V. ..		93	92	Tribhuvandás Mathurádás....	Vania.....	19	0	4	0	Do. do.	S. in satisfactory state.
6	1849	Surat No. VI. ..		72	64	Valabrám Itchárám	Brahmin ..	10	0	6	0	Do. do.	S. not in very good order.
7	1848	Do., Hind. VII..		68	50	Abdul Raúf	Musalman..	20	0	4	0	Do. do.	S. in a creditable state.
8	1841	Kaliavadi	1,823	45	32	Laxmirám Narotam	Brahmin ..	19	0	16	0	Do. do.	S. in tolerable order.

9	1830	Balsad	7,362	61	56	Shivaprasád Ruprám	Ditto ..	19	0	18	9	Do.	do.	Do. do.
10	1850	Pardi	4,328	57	46	Párvatishankar Durgáshankar	Vania.....	15	0	2	6	Do.	do.	S. improved during the year.
11	1848	Surbhon	2,035	37	29	Kirpárám Aditrám.....	Brahmin..	10	0	4	0	Do.	do.	S. not in good order.
12	1847	Bardoli	3,300	40	35	Harnáráyán Náronrám.....	Ditto ..	15	0	5	6	Do.	do.	S. improved during the year.
13	1851	Mandavi	6,000	50	42	Rámnáth Jagonnáth.....	Ditto ..	15	0	1	8	Do.	do.	S. in a satisfactory state.
14	1830	Mota	2,800	21	17	Prágji Valabji.....	Ditto ..	15	0	0	2	Do.	do.	M. lately appointed.
15	1849	Rander	9,078	65	57	Keshavarám Amritrám.....	Ditto ..	10	0	0	3	Dec	do.	Do. do.
16	1827	Orpad	4,300	69	53	Itchárám Vishvanáth	Ditto ..	19	0	22	0	Do.	do.	S. improved during the year.
		Broach Collectorate.												
17	1826	Broach No. I....	31,312	118	97	Makúndram Asharám	Ditto ..	25	0	26	0	Do.	do.	S. in tolerable order.
						Jamnádás Vandravandás	Vania.....	5	0	0	3	Do.	do.	Lately appointed.
18	1826	Broach No. II. ..		39	30	Luxmináráyan Shivanáráyan.	Brahmin ..	19	0	2	0	Do.	do.	M. lately transferred from S. at Kaira.
19	1830	Anklesar	7,839	85	73	Keshavarám Vishvanáth.....	Ditto ..	19	0	20	0	Do.	do.	S. in tolerable order.
20	1833	Ahmod	4,425	69	62	Bhovánínand Ganpatinand...	Ditto ..	19	0	0	2	Do.	do.	M. lately appointed.
21	1830	Jambúsar.....	12,589	106	84	Vakatrám Ajarámár.....	Ditto ..	19	0	15	0	Do.	do.	S. in a satisfactory state.
		Ahmedabad Collectorate.												
22	1826	Ahmedabad No. I.	100,000	241	203	Tuljárám Sukrám.....	Ditto ..	30	0	26	0	Jan	1853	The largest S. in the division.
						Hargovand Narsingrám.....	Vania. ..	5	0	3	0	....		Useful as an Assistant.
						Sukalchand Vithaldás.....	Ditto ..	3	0	0	6	....		Newly appointed.
						Chugan Máháshankar.....	Brahmin ..	2	0	0	6	....		Do. do.
23	1826	Ditto No. II.		73	69	Máhádhurám Ambárám.....	Ditto ..	19	0	22	0	Jan	1853	S. in tolerable order.
24	1848	Ditto No. III.		100	92	Ranchod Amichand...,....	Kunbi. ..	15	0	6	0	Do.	do.	S. in a satisfactory state.
25	1849	Ditto No. IV.		157	141	Lálbhái Ruprám.....	Brahmin ..	20	0	5	0	Do.	do.	One of the best of our teachers.
						Asharám Motirám.....	Ditto ..	5	0	0	8	....		Lately appointed.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils		Name of Master, and Assistant Master.	Caste.	Pay per Mensem.		Length of Service.		When last Examined.	Remarks.
				On Register.	Present at Examination.								Note.—S. denotes School, M. Master.
		Ahmedabad Collectorate (continued).						*Rs.*	*a.*	*y.*	*m.*		
26	1827	Dholka.....	19,971	92	71	Nathubhái Ghelábhái.....	Brahmin ..	10	0	5	10	Jan 1853	S. in tolerable order.
27	1847	Dholera.....	7,000	91	79	Ruprám Asharám	Ditto ..	10	0	5	0	Do. do.	Do. do.
28	1830	Danduka.....	7,000	83	78	Jagonnáth Girjashankar	Ditto ..	19	0	22	0	Do. do.	S. and M. both good.
29	1852	Bhaonaggar.....	40,000	163	155	Ugreshwar Ajarámar	Ditto ..	20	0	0	5	Do. do.	S. progressing well.
		Kaira Collectorate.											
30	1826	Kaira.....	12,091	93	80	Ganpatrám Nathurám.....	Ditto ..	18	8	0	2	Dec 1852	M. newly appointed.
31	1826	Nariad.....	20,782	222	202	Tuljárám Somnáth.....	Ditto ..	25	0	12	0	Do. do.	A very large S., in excellent order.
						Dahyábhái Narbhairám.....	Ditto ..	5	0	3	0	....	Well spoken of.
32	1838	Matar.....	4,348	62	56	Parshotam Venirám.....	Ditto ..	10	0	5	0	Dec 1852	S. much improved during the year.
33	1848	Mehmedabad.....	7,240	47	46	Govindrám Harirám.....	Ditto ..	15	0	0	2	Do. do.	M. lately appointed.
34	1830	Mahuda.....	9,400	85	80	Laxmirám Brijlál	Ditto ..	18	8	12	0	Do. do.	S. in tolerable order.
35	1830	Umrat.....	13,652	115	87	Múrárji Kavalrám.....	Ditto ..	18	8	22	0	Do. do.	Do. do.
36	1830	Kapadvanj.....	12,428	53	50	Ghelábhái Jagjivan.....	Ditto ..	18	8	2	0	Do. do.	M. lately transferred from S. at Mehmedabad.

APPENDIX No. XI.

Return of Government Vernacular Schools in the 3rd Division, comprising the Collectorates of Tanna, Rutnagiri, Belgaum and Dharwar, under the Superintendence of F. P. Baker, Esq.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils		Name of Master, and Assistant Master.	Caste.	Pay per Mensem.		Length of Service.		When last Examined.	Remarks. Note.—S. denotes School, M. Master.
				On Register.	Present at Examination.								
		Tanna Collectorate.						*Rs.*	*a.*	*y.*	*m.*		
1	1822	Tanna	11,150	83	65	Náráyán Bábácháryá.....	Brahmin ..	20	0	1	8	Nov 1852	M. lately promoted from Assistant Teacher.
2	1830	Kalian.....	6,974	83	64	Vithal Abáji Ránádeh.....	Ditto ..	19	8	22	11	Do. do.	S. in an unsatisfactory state.
3	1849	Taleh	3,400	71	71	Ganesh Rámchandra.....	Ditto ..	10	0	16	5	Do. do.	Do. do.
4	1833	Bassein.....	6,615	120	95	Dáji Moreshwar.....	Ditto ..	15	0	19	11	Do. do.	S. in very good order.
5	1839	Mahad.....	5,000	95	85	Káshináth Bápuji Ok.....	Ditto ..	12	0	12	11	Do. do.	S. in tolerable order.
6	1831	Panvel, Mar.....	7000	83	71	Káshináth Krishná.	Ditto ..	19	8	12	11	Do. do.	Do. do.
7	1840	Panvel, Hind'...		56	49	Syud Amin	Musalman.	20	0	4	5	Do. do.	S. in an unsatisfactory state.
8	1840	Mahim.....	4,000	114	93	Govind Dinkar Chitle.....	Brahmin ..	15	0	12	10	Do. do.	S. in good order.
						Ganesh Vithal Ránáde.....	Ditto ..	6	0	0	6	....	Lately appointed.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils		Name of Master, and Assistant Master.	Caste.	Pay per Mensem.		Length of Service.		When last Examined.	Remarks.
				On Register.	Present at Examination.								NOTE.—S. denotes School, M. Master.
		Rutnagiri Collectorate.						*Rs.*	*a.*	*y.*	*m.*		
9	1823	Rutnagiri No. I..	8,000	197	194	Gangádhar Rámchundra.....	Brahmin ..	25	0	11	6	Jan 1853	Best S. in the division.
						Bápuji Govind Abhiankar....	Ditto ..	10	0	0	1	....	Lately appointed.
						Gopál bin Raghushett.....	Vani.....	6	0	2	2	....	Useful as a teacher.
						Vásudeva Laxumon Limaya..	Brahmin ..	6	0	0	11	....	Do. do.
10	1823	Ditto No. II..		261	236	Shivarám Bhúskar Káne	Ditto ..	18	0	10	2	Jan 1853	Largest S. in the division.
						Vamanáji Vithal Goreb.....	Ditto ..	3	0	0	6	....	Lately appointed.
11	1843	Harnai.....	7,200	77	66	Vishvanáth Vishnu.....	Ditto ..	15	0	4	0	Dec 1852	S. in good order.
12	1834	Murud.....	1,500	57	53	Venáyek Govind.....	Ditto ..	10	0	10	11	Do. do.	S. in tolerable order.
13	1847	Jalgaum.....	2,700	72	68	Vásudeva Keshava	Ditto ..	10	0	4	10	Do. do.	M. lately transferred from S. at Palshett.
14	1843	Palgad.....	2,100	62	54	Bápu Sona Sáwant.....	Maratha ..	12	0	9	11	Do. do.	M. lately promoted from Assistant teacher at Rutnagiri S. No. I.
15	1843	Khed.	2,200	75	73	Sakhárám Nilkant	Brahmin ..	10	0	7	10	Do. do.	S. improved during the year.
16	1833	Chiplún.....	6,000	151	133	Parshotam Janárdhan..	Ditto ..	19	8	4	6	Do. do.	M. lately transferred from S. No. II. at Rutnagiri.
						Gopál Sakhárám	Ditto ..	3	0	0	9	....	Lately appointed.
17	1834	Dabhol.....	3,000	126	118	Rámji bin Hari Agáshe....	Maratha ..	12	8	5	0	Dec 1852	A large and flourishing S.

18	1849	Anjanwel	2,100	67	50	Vamnáji Govind	Brahmin ..	10	0	5	6	Do. do.	M. lately promoted from Assistant teacher at S. No. I. at Rutnagiri.
19	1837	Gohagar.....	2,153	125	113	Rágho Sakhárám Kháre	Ditto ..	15	0	10	1	Jan 1853	A large S., in tolerable order.
						Shivarám Anant Kháre.	Ditto ..	5	0	5	1	....	Gives satisfaction.
20	1831	Rajápúr	6,100	109	97	Dhondu Vithoji Amrite.....	Maratha ..	12	0	5	5	Jan 1853	M. lately transferred from S. at Jalgaum.
21	1841	Malwan	10,000	133	111	Vithal Moreshwar	Brahmin ..	10	0	5	9	Do. do.	A large well conducted S.
22	1843	Someshwar	1,500	56	49	Náro Máhádeva Phadke.....	Ditto ..	15	0	5	5	Do. do.	M. lately transferred from S. at Pawas.
						Antáji Bábji Joshi	Ditto ..	5	0	0	10	....	Appointed during the year.
23	1844	Vingurla	5,000	110	103	Máhádeva Laxumon.....	Ditto ..	15	0	4	6	Jan 1853	M. lately promoted from assistant teacher at Dharwar Mar. S.
24	1847	Pawas	2,600	70	64	Murári Bhámshet Bede.....	Vani ..	10	0	1	7	Do. do.	M. lately promoted from Assistant teacher at S. No. I. at Rutnagiri.
25	1848	Palshet	2,100	64	54	Keshava Vithal.....	Brahmin ..	10	0	4	9	Do. do.	M. lately transferred from S. at Mahim.
26	1851	Malgúnd	2,100	104	98	Bháu Abáshet	Shimpi ..	10	0	8	10	Do. do.	S. in a satisfactory state.
		Belgaum Collectorate.											
27	1830	Belgaum, Mar....	16,133	161	148	Náro Rámchandra Jámbheker.	Brahmin ..	25	0	13	6	Feb 1853	Best S. in the Collectorate.
						Náro Rámchandra Dátár ...	Ditto ..	12	0	4	6	....	Gives satisfaction.
						Káshináth Keshava Gudre...	Ditto ..	5	0	0	6	....	Appointed during the year.
28	1838	Belgaum, Can....		149	131	Janárdhan Krishná.....	Ditto ..	15	0	14	11	Feb 1853	M. lately transferred from S. at Gokak.
29	1838	Sampgaum	3,000	50	48	Laxumon Rámji.....	Maratha ..	12	8	4	10	Do. do.	S. not in a satisfactory state.

No. of Schools.	When established.	Name of Town or Village.	Estimated Population.	No. of Pupils		Name of Master, and Assistant Master.	Caste.	Pay per Mensem.		Length of Service.		When last Examined.	Remarks. NOTE.—S. denotes School, M. Master.
				On Register.	Present at Examination.								
		Belgaum Collectorate (continued).						*Rs.*	*a.*	*y.*	*m.*		
30	1838	Bailhongol	6,005	80	69	Parvayyá bin Lingayyá.....	Lingayat ..	12	8	12	8	Feb 1853	A very good S. and M.
31	1840	Gokak	13,000	93	82	Báláji Gopál	Brahmin ..	12	0	5	1	Oct 1852	M. lately tranferred from S. at Misrikote.
						Ráoji Bálcrishná.....	Ditto ..	4	0	1	3	....	Gives satisfaction.
32	1841	Sadalga	5,200	65	61	Káshináth Yedneshwar.....	Ditto ..	12	8	8	4	Oct 1852	S. and M. both good.
33	1849	Jambuti	2,400	41	38	Jairám Yedneshwar	Ditto ..	10	0	0	9	Apr 1853	M. appointed during the year.
34	1843	Khanapúr	3,690	93	83	Náro Trimbak	Ditto ..	10	0	4	10	Do. do.	S. much improved during the year.
35	1838	Savadati	6,000	100	84	Prabhu bin Subhánji.....	Maratha ..	9	0	4	11	Mar do.	M. lately transferred from S. at Ranibinúr.
36	1844	Itgi	2,300	34	25	Vásudeva Vishnu Nátekar...	Brahmin ..	10	0	9	0	Do. do.	Worst S. in theCollectorate.
37	1838	Bidi	2,600	91	82	Swámiráo Venkatesh.....	Ditto ..	10	0	5	4	Do. do.	S. in satisfactory order.
		Dharwar Collectorate.											
38	1826	Dharwar, Mar....	2,4000	179	147	Bálcrishná Máhádeva	Ditto ..	30	0	28	10	Feb 1853	Best and largest S. in the Collectorate.
						Govind Prabhákar.....	Ditto ..	10	0	0	6	....	Appointed during the year.
						Dhondu Datátraya	Ditto ..	4	0	0	10	....	Do. do.

						Bálláji Báburáo.....	Shenvi ..	4	0	0	6	....	Do. do.
						Malhári Keshava	Brahmin ..	2	0	0	8	....	Do. do.
39	1835	Dharwar, Can. ..	24,000	120	89	Shivarudrayá bin Gurulingayá	Lingayat ..	12	0	7	10	Mar 1853	S. in good condition.
						Bhimáji Timáji.....	Brahmin ..	3	0	3	11	....	Gives satisfaction.
40	1846	Morab.....	3,470	51	49	Ghudusing bin Shivarámsing .	Rajput ..	10	0	7	9	Sept 1852	S. in a satisfactory state.
41	1844	Navalgund	8,000	68	67	Anáji Vithal Gorbole.....	Brahmin ..	10	0	3	10	Do. do.	M. lately transferred from S. at Jambuti.
42	1826	Hubli, Mar.	26,000	130	101	Vishnu Bábji Sáne.....	Ditto ..	20	0	15	11	Feb 1853	A large S., in satisfactory order.
						Krishnáji Shivarám Kelkar.	Ditto ..	4	0	0	4	....	Appointed during the year.
43	1835	Hubli, Can.		50	29	Hanmant Jiváji.....	Ditto ..	10	0	9	1	Mar 1853	Worst S. in the Collectorate.
44	1846	Bankapúr	4,450	47	41	Gangádhar Madvaleshwar..	Lingayat ..	10	0	5	1	Do. do.	S. not in a satisfactory state.
45	1844	Hangal	4,880	26	17	Ráchoppá bin Gurubas-weshwar	Ditto ..	10	0	7	2	Do. do.	A very good S.
46	1836	Ranibinur	10,000	98	85	Bhimáji Bálláji.....	Brahmin ..	15	0	10	10	Do. do.	S. in tolerable condition.
						Virupatsh Sesho.....	Ditto ..	3	0	0	3	....	Lately appointed.
47	1848	Kalghatgi	2,800	59	44	Krishnáji Keshava Sáne....	Ditto ..	8	0	1	8	Mar 1853	M. lately promoted from assistant teacher at Hubli Mar. S.
48	1846	Misrikote.....	2,100	53	46	Rámchandra Madhusa.....	Khatri ..	10	0	4	10	Do. do.	M. transferred from S. at Haveri.

APPENDIX No. XII.

LETTER FROM GOVERNMENT, FORWARDING THE REPORT OF THE GOVERNMENT EXAMINER OF THE GRANT MEDICAL COLLEGE.

No. 1443.

GENERAL DEPARTMENT.

To M. STOVELL, Esquire,
Secretary to the Board of Education.

SIR,

I am directed by the Right Honorable the Governor in Council to forward, for the information of the Board, the accompanying copy of a letter and its enclosures from Dr. McLennan, reporting the result of the last examination of graduates of the Grant Medical College, and of my reply of this date. It is requested that these documents may be published in the Board's next annual report.

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) J. G. LUMSDEN,
Secretary to Government.

Bombay Castle, 30th April 1853.

No. 1442 of 1853.

GENERAL DEPARTMENT.

To JOHN McLENNAN, Esquire.

SIR,

I am directed to acknowledge your letter of the 12th instant, reporting the result of the examination of the students of the Grant Medical College, for the session of 1852-53.

2. The Right Honorable the Governor in Council considers the report to be, as usual, satisfactory, and I am directed to convey to you and the Assessors the thanks of Government for the assistance rendered on this occasion.

3. You will have the goodness to acquaint the Principal and Professors of the Grant Medical College that Government have derived much satisfaction from a perusal of the present report.

4. In accordance with your recommendation, Rustomji Byramji will be appointed a Sub-Assistant Surgeon.

5. A copy of your report has been furnished to the Board of Education, and, with its accompaniments, will be printed in their next annual report.*

I have the honor to be,

Sir,

(Signed) J. G. LUMSDEN,

Secretary to Government.

Bombay Castle, 30th April 1853.

(True copy)

(Signed) J. G. LUMSDEN,

Secretary to Government.

* The documents alluded to will be found in Appendix P, at page 44 of the annexed report of the Grant Medical College.

APPENDIX No. XIII.

MINUTE BY DR. McLENNAN RELATIVE TO INCREASING THE EFFICIENCY OF THE GRANT MEDICAL COLLEGE.

It will be in the recollection of my colleagues that in August last I submitted a minute, in which I brought to their notice some arrangements, having in view increased efficiency in the means of instruction in the Calcutta Medical College not long before determined on in that Presidency, and I suggested that we should submit to Government a proposition that new arrangements, in many respects similar to those in the Calcutta College, should here be adopted in the Grant Medical College.

2. Of these, the first was the subject of materia medica, which it was proposed should be disjoined from the professorship of chemistry, materia medica, and botany, and given as an *ex-officio* duty to the Medical Storekeeper, then in possession of a monthly staff salary of Rs. 700—arising from his pay as Medical Storekeeper (Rs. 500), and Superintendent of Government Dispensaries (Rs. 200). Of this proposal the Right Honorable the Governor in Council, in letter No. 4294 of 1852, General Department, was pleased "to approve, being satisfied that it will prove highly conducive to the public service," but it was at the same time intimated "that the arrangement could only have prospective effect."

3. Since then, however, the dispensaries have been abolished at all the Presidencies, and with that, here, the salary attached to the superintendency of these institutions. On 10th December last, I therefore suggested to my colleagues, that if the dispensaries should be abolished in toto, it would be well to make pro-

posals for the appropriation of the saving which would thus be effected by Government, but which saving was likely to be a direct loss to medical education, inasmuch as it was hardly to be expected that the annexation of the chair of materia medica to the Medical Storekeepership would then hold, for it, (the Storekeepership,) divested of the superintendency of dispensaries, would then become a purely military medical staff appointment in the patronage of His Excellency the Commander-in-Chief, and not be, as before, partly civil, in that likewise of the Right Honorable the Governor.

4. In Calcutta, consequent on the abolition of the dispensaries, the appointment of Deputy Apothecary—to which situation the *ex-officio* professorship of materia medica was attached, as here it was proposed to attach it to the superintendency of dispensaries—has been abolished, but the emoluments of the office have been transferred to the Medical College for the endowment of a professorship of materia medica and clinical medicine.

5. I would therefore beg to propose to Government, that as the abolition of the dispensaries here has, in the mere matter of salaries of the medical superintendent and subordinate medical establishment, effected a saving of above Rs. 400 per mensem,—as will be apparent from the enumeration in the margin,—we should suggest that, following out the principle adopted in Bengal, Rs. 150 of this saving should be given over to the Grant Medical College for the endowment of a chair of materia medica and pharmacy.

Saving.

Salary of Superintendent of Town and Country Dispensaries		Rs. 200
	1 Assistant Apothecary at the Town Dispensary	85
Employed in Town and Country Dispensaries.	3 Second Store Assistants, at Rs. 20 each	60
	2 First Apprentices, at Rs. 15 each	30
	2 Second Grade Apprentices, at Rs. 10 each	20
	2 Peons, Rs. 5 each; 2 Mussals, Rs. 5 each; and 2 Halalkhores, at Rs. 2 each	24
		Rs. 419

NOTE.—This does not, of course, include 1 Assistant Apothecary, Country Dispensary, and 2 First Store Assistants of both Dispensaries, who have continued in the Service, and are now supernumeraries in Hospitals, acquiring a knowledge of their new duties on being transferred to the Hospital from the Store Department, but who will hereafter be absorbed into the Service, and become an additional saving.

6. I would, moreover, submit that the creation of the new chair of anatomy and physiology, proposed in my former minute, should be made, and that Rs. 150 of the saving lately effected by the abolition of the dispensaries be appropriated to this purpose: thus, after the grant of two new chairs, each of Rs. 150, there will be left, consequent on the abolition of these institutions, a clear saving in salaries alone of above Rs. 100 per mensem.

7. By so distributing this saving, the cause of medical education would be greatly advanced, and the Grant Medical College of Bombay would be placed more on a par, as to efficiency in the staff of its professors, with the Medical Colleges of Calcutta and Madras.

8. I do not advert to the *ex-officio* professorship of ophthalmic surgery, or to the junction of practical municipal medical duties with those of the professorship of medical jurisprudence, as it may be the intention of Government hereafter to issue orders, or to make arrangements on these matters.

9. If the Government should be graciously pleased to assent to my proposal thus to advance the cause of medical education by the institution of two new chairs, viz. one for materia medica and pharmacy, and one for anatomy and physiology, the college would then be as already sketched, viz:—

One Professor of	Anatomy and Physiology.
Ditto	Chemistry and Botany.
Ditto	Materia Medica and Pharmacy.
Ditto	Surgery, Principles and Clinical.
Ditto	Medicine, Principles and Clinical.
Ditto	Midwifery, Principles and Clinical.
Ditto	Medical Jurisprudence.
Ditto	Ophthalmic Surgery, *ex-officio*.

(Signed) JOHN McLENNAN.

23*rd April* 1853.

APPENDIX No. XIV.

LIST OF BOOKS RECEIVED FROM THE GOVERNMENT OF THE NORTH-WESTERN PROVINCES.

English.

ABBOTT. (Lieut. Col. F.) Practical Treatise on Permanent Bridges for Indian Rivers.

ACTS and Orders of the North-western Provinces, for the years 1849 and 1850.

ADAM. (W.) Extract from 3rd Report on the State of Education in Bengal and Behar.

AGRA to Bombay, Route from.

BAKER. (Major W. F.) Memorandum of the Jumna Canals of the Bengal Presidency.

DIRECTIONS for the Revenue Officers in the North-western Provinces of the Bengal Presidency.

DIXON. (Lieut. Col. C. J.) Sketch of Mairwara.

DOCUMENTS regarding the Navigation of the Ganges from " Allahabad to Ravulgunge, at the mouth of the Gogra.

ELLIOT. (Sir H. M.) Bibliographical Index to the Historians of Mahomedan India, Vol. I.

GANGES Canal Works, Estimate of, 1850.

GOODWIN. (Lieut. Col. H.) Report on the Agra and Bombay Road.

GUBBIN. (M. R.) Reports upon the Settlement of Zillah Etawah.

MATHEMATICAL Tables, comprehending Logarithms of all numbers from 1 to 10,000.

MEMOIR of the Indigenous Education within the North-western Provinces, compiled by R. Thornton, Esquire.

MONTGOMERY. (R.) Statistical Report of the District of Cawnpoor.

Ditto. Ditto of the Arrangements made for Supplies and Police of the Grand Trunk Road in the Cawnpoor District.

OPERATIONS for the improvement of the Navigation of the Ganges from Ravulgunge to Allahabad, during the season 1849-50.

PROCEEDINGS regarding the Settlement of a Village, Translation of.

RENNY. (Dr. C.) Medical Report on the Mahamurree in Gurhwal in 1849-50.

REPORT upon the Tea Plantations in the North-western Provinces.

REPORT, Half-yearly, relative to the Management of the Government Dispensaries in the Upper Provinces, from 1st February to 31st July 1851.

Ditto of the Sudder Dewanee Adawlut, North-western Provinces, on the Administration of Civil Justice, 1840, 1841, 1842.

Ditto of the Nizamut Adawlut, North-western Provinces, on the Administration of Criminal Justice, 1842—1844.

Ditto on the Settlement of the District of Seharunpore, 1839.

Ditto of the Sudder Board of Revenue on the Revenue Administration North-western Provinces, for the Official Years 1848-49, and 1849-50.

Ditto on the Projected Canals in the Delhi Territory.

Ditto, Official, on the Provinces of Kumaon, with a Medical Report on the Mahamurree in Gurhwal, in 1849-50. Edited by J. H. Batten.

SELECTIONS from the Public Correspondence, from Part III. to XI.

SELECTED Papers and Orders on the Marching of Troops, and Mode of obtaining Supplies.

SHAKESPEARE. (A.) Memoir on the Statistics of the North-western Provinces of the Bengal Presidency.

STATISTICAL Report on the District of Goorgaom.

SYLLABUS of a Course of Lectures upon Experimental Philosophy.

TRESHAM's Pamphlet on Blasting under Water by means of Galvanism.

English and Urdu.

ACTS of the Supreme Government for the year 1834 to 1839.

Urdu.

ABBOTT. (Lieutenant Colonel F.) Practical Treatise on Permanent Bridges for Indian Rivers.

BANSIDHAR. (Pandit.) Dharamsing-ka-Kissa.

DIRECTIONS for the Revenue Officers in the North-western Provinces of the Bengal Presidency.

EDMONSTONE. (G. F.) Penal Code.

HUGHES' Principles of Geography.

INDEX to the Acts and Orders of the North-western Provinces, from 1844 to 1846.

KALAIRAE's Khet Karam.

MONTGOMERY. (R.) Statistical Report of the Districts of Cawnpoor.

PROCEEDINGS regarding the Settlement of a Village, Translation of.

RAIRAM, Sharandas. Acchar Abhyas, Part I. (Lithographed.)

Ditto	ditto	Phailavat, Part II.	(Ditto.)
Ditto	ditto	Map Tole, Part III.	(Ditto.)
Ditto	ditto	Patvari-ki-ketab, Part IV.	(Ditto.)
Ditto	ditto	Acchar Abhyas, Part I.	(Printed.)
Ditto	ditto	Phailavat, Part II.	(Ditto.)
Ditto	ditto	Map Tole, Part III.	(Ditto.)
Ditto	ditto	Patvari-ki-ketab, Part IV.	(Ditto.)

REPORT on Schools in Bhir Bheom.

SHAKESPEAR. (A.) Memoir on the Statistics of the North-western Provinces of the Bengal Presidency, by Suchmensing.

TRESHAM's Pamphlet on Blasting under Water, by means of Galvanism.

Hindi.

BAPU DEVA SHASTRI, Bij Ganit, or a Treatise on Hindi Algebra.
BHORAH-ki-ketab.
MAHAJAN-ki-ketab (Merchant's Book.)
RAIRAM Sharandas, Acchar Abhyas, Part I. (Printed.)
Ditto ditto Phailavat, Part II. (Ditto.)
Ditto ditto Map Tole, Part III. (Ditto.)
Ditto ditto Patvari-ki-ketab, Part IV. (Ditto.)
Ditto ditto Phailavat. (Lithographed.)
Ditto ditto Patvari-ki-ketab.
SHRILAL. (Pandit.) Dehali Dip.
Ditto ditto Dharamsing-ka-vritant.
Ditto ditto Khet Karam.
TREATISE on Idleness.

Books published by the Visitor General of Schools North-western Provinces.

BANSIDHAR. (Pandit.) Misbáhul Masahat, in Urdu.
Ditto ditto Mubadi-il-Hisal, in ditto.
CHIRANJILALL. Inshai, in ditto.

Sanskrit and Anglo-Sanskrit Publications of Dr. Ballantyne, Principal, Benares College.

APHORISMS of the Mimánsá, Part I.
Ditto of the Nyáya.
Ditto of the Vedánta, Part I.
Ditto of the Vaiseshika.
Ditto of the Yoga, Part I.
BHASHA, Parichchheda and Siddhanta Múktavali.
FIRST Lessons in Sanskrit Grammar.
LAGHU KANMUDI, Parts II. and III.
LECTURES on the Nyáya Philosophy.
Ditto on the Sankhya Philosophy.
Ditto on the Vedánta.
SYNOPSIS of Science.
TARKA SANGRAHA.

APPENDIX No. XV.

GOVERNMENT NOTIFICATION RELATIVE TO ADMISSION INTO THE LOWER GRADES OF THE PUBLIC SERVICE.

General Department.

The following Rules, which will in future be binding on Candidates for admission into the lower grades of the Public Service, are published for general information :—

1. The usual Members of the Judge's and Collector's Establishment, who form at present the District Examination Committees annually assembled for the purpose in each Collectorate, associated with the Superintendents of the Schools in each Division under the Board of Education, will, for the future, meet *biennially* at the several Sudder Stations, for the Examination of Candidates for public employ.

2. The time of assembling the Committee will be the month of July; the Collector and Magistrate is the Officer appointed to convene the Committee. Before one or other of these Committees, Candidates will present themselves for examination, and they will only be eligible for the public service on receiving a Certificate of qualification from the Committee.

3. The period during which these Examinations will continue is limited to 10 days.

4. No Candidate will be examined under the age of 16 years, or past the age of 25.

5. To entitle him to be examined, the Candidate must produce before the Committee a Certificate from a Schoolmaster, either Government or private, that he has a good knowledge of

reading, writing, and arithmetic; and this Certificate must be countersigned by a Moonsiff or Mamlutdar, who is further to certify that the Candidate bears a respectable character.

6. Before the Committee, the Candidate will be required to read and write well the language of the country; to understand Accounts, and have some knowledge of the forms in which Native Bankers keep their books; and, if a Candidate for Revenue employ, of the Lithographed (Blane's) form of Accounts. He should also exhibit some acquintance with the History and Geography of India, and have a fair knowledge of the principal Civil or Criminal Regulations, if for the Judicial or Police employ; and of the Joint Report Rules, if for Revenue employ in Districts in which Revenue Surveys are being administered.

7. The Committee will be directed to assign, according to the present system of classification by annas, a certain number of annas of classification to a knowledge of the History and Geography of India, but they will not be allowed to assign so many annas as would give proficients in those branches, who know nothing of Accounts, Regulations, or Field-work, a preference over other Candidates well versed in such matters.

8. The Board of Education are authorized, in communication with each Collector and Judge, to appoint annually to the first situation of 10 rupees salary, which may become vacant in the principal Cutcherry or Adawlut of each Collectorate or Zilla throughout the country, a Pupil who shall have attained a standard of qualification which the Board, with the sanction of Government, may hereafter fix. Government are to be informed by the Board, at the close of each year, of the appointments so made, and also to be furnished with copy of a Report, which is to be furnished to the Board by the several Heads of the Departments, descriptive of the conduct and advancement in the Service of the person so appointed.

9. The above rule is subject to this proviso, that the Nominee, if educated in an English School, possesses a knowledge of the Vernacular of the District in which he is to be employed.

10. After the first Committee has assembled, no Candidate for employment under Government shall be received into the

public service, nor shall his services be accepted in any Civil Public Office, even as an Omedwar, unless he has submitted to the preliminary tests prescribed by these Rules.

11. The first meeting of the several Committees is to take place in July 1853.

12. As regards Peons, His Lordship in Council has been pleased to lay down as a rule for future observance, that when two persons equally qualified in other respects for Peon work are desirous of obtaining service under the Government, the preference is to be given to the applicant who can read and write. Persons borne, however, on the Peon Establishment, are not to perform other duties. No persons but those of the Castes and class equally serving as Peons are to receive employment as Peons: young, hale, and active men are to be preferred to others who are more infirm; and as persons of this class are not entitled to Pension, the claims of Peons, who have long served the Government, to have their sons or near relations provided with places, are to be duly attended to.

By Order of the Right Honorable the Governor in Council,

J. G. LUMSDEN,
Secretary to Government.

—*Government Gazette, 20th May* 1852.]

APPENDIX No. XVI.

NOTIFICATION RELATIVE TO ESTABLISHING SCHOOLS IN THE SATTARA DISTRICTS.

The Honorable the Court of Directors having been pleased to sanction the appropriation of seven thousand (7,000) Rupees per annum for purposes of Education in the province of Sattara, the Board of Education hereby give notice as follows :—

2. A First Class School will be immediately established at Sattara, and Second Class Schools will also be established at that city, as well as at Bijapur, Punderpur, Wai, and Kurar.

3. The principle adopted by the Board in granting pecuniary assistance is, that the Government Funds ought not to be laid out in maintaining Schools without any co-operation from those who profit by them, but should be used to assist the inhabitants of towns and villages who are desirous to establish better Schools than they have hitherto known.

4. For this reason, although the Board have felt themselves compelled in the first instance to defray the principal part of the expenses of the Schools mentioned above, in all new Schools to be established hereafter the Board intend to extend their assistance only to such places as show, by their readiness to support a School, that they appreciate the value of a good education.

5. The Board therefore invite applications, addressed to the Superintendent of the Government Schools of the First Division, from villages who desire to establish superior Schools to those now in existence, and who seek for assistance from Government, stating the amount per month which they are willing to guarantee to the Schoolmaster. In deciding between different applications

for assistance, the Board will be chiefly governed by the monthly amount offered for the Schoolmaster.

6. The Board will also make small grants not exceeding Rupees five (5) a month to the Schoolmasters of indigenous Schools, if the Schoolmaster appointed by the Village has been educated in a Government or English School, and be well reported on by the Superintendent.

7. The Board also have in contemplation the creation of a certain number of Scholarships, to enable meritorious Students at the Second Class Schools to prosecute their studies at the English School at Sattara, or at the Poona or Elphinstone College.

By order of the Board of Education,

M. STOVELL,
Secretary.

Bombay, 26th October 1852.

APPENDIX No. XVII.

REPORTS OF NATIVE LIBRARIES AT AHMEDNUGGUR, AHMEDABAD, AND TANNA.

NATIVE LIBRARY AT AHMEDNUGGUR.

To M. STOVELL, Esq.,
Secretary to the Board of Education, Bombay.

SIR,—Agreeably to the Government Circular No. 3477, dated the 3rd September 1850, I have the honor to submit a report on the state of the Ahmednuggur Native Library during the past year.

2. On the 1st of January 1852 there was a balance in favour of the library of Rs. 494-1-9, the subscriptions &c. during the year amounted to Rs. 362-12-6, the interest on the sums deposited in the banker's hands to Rs. 16-4-9; the whole thus making an aggregate of Rs. 873-3-0.

3. Of this sum there was expended during the year Rs. 185-7-3 towards current expenses, Rs. 30 on furniture, Rs. 45-11-0 on books and newspapers, and Rs. 210 in additions and repairs to the building; the balance now in hand is, consequently, Rs. 402-0-9.

4. The particulars of the receipts and disbursements will be found in Statement A.*

5. In Statement B * will be found a list of books of the value of Rs. 400, received from England, and which, as stated in last

* These particulars it seems unnecessary to insert.

year's report, were purchased by Mr. Tucker, C. S., from the funds of the Library.

6. Statement C * shows what books were purchased by the library during the year; Statement D * gives the list of books received from Government, and Statement E * a list of those received from private sources.

7. The books above alluded to as having been purchased in England by Mr. Tucker are a very great addition to the library, and some of them seem already to have been a good deal used; but on the whole there are so few persons here able to read English at all fluently, that English literature is not yet so much sought after as it will doubtless be before many years have elapsed. The English school already furnishes a considerable number of young aspirants, but it has, as you are aware, been only a few years in existence.

8. I think the Native library may be said to be on the whole in a flourishing condition, but there is not among the Natives themselves (with a few exceptions) as much interest taken in its welfare as one could wish to see: they are glad enough to see it prosper, but they would not go far out of their way to assist in its prosperity. The room is occasionally made use of by a debating society, the language being Marathi: there were formerly, as mentioned in last year's report, debating meetings in English also, but they have been for some time altogether discontinued.

9. The total number of subscribers to the library is 60, of whom 9 are European and 51 Native: the monthly subscription amounts to about Rs. 30.

10. I consider it necessary, in conclusion, to notice the large sum that has been expended on the building, which contrasts forcibly with the small sum expended on books. The building in which the library is held is an old musjid, and it was much out of order, and sadly in want of repairs and additions: the Committee, conjecturing that the more comfortable the accommodation was, the more likely persons would be to frequent it, sanctioned the erection of a veranda, which has in fact become

* These particulars it seems unnecessary to insert.

an extra room, and apparently a very favourite and airy one; a wall has also been constructed all round the compound, making the place more private, and preventing the passers-by from being able to stare into the rooms, as they formerly could do and did, the building being close to a public thoroughfare.

11. As the funds are prospering, I hope ere long that considerable additions may be made to the number of books.

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) J. M. ERSKINE,
Secretary to the Native Library Committee.

Ahmednuggur, 15th April 1853.

NATIVE LIBRARY AT AHMEDABAD.

No. 74 OF 1853.

To the SECRETARY TO THE BOARD OF EDUCATION,
Bombay.

SIR,—I have the honor to submit, to be laid before the Board, the accompanying original statement, relative to the Ahmedabad Native Library, and to be,

Sir,
Your most obedient Servant,
(Signed) A. W. JONES,
Judge.

Ahmedabad, Court of Adawlut, 28th February 1853.

Annual Statement for the year 1852, *showing the state of the Gujerat Vernacular Society's Native Library at Ahmedabad, 1st January* 1853.

Books.	No. of Books on the 31st Dec. 1851.	Number received during the year 1852.	Total Number on the 31st Dec. 1852.	Readers.	Number of readers on the 31st Dec. 1851.			Number admitted during the year 1852.			Number left during the year 1852.			Number remaining on the 31st Dec. 1852.		
					English Readers.	Gujerati Readers.	Total.	English Readers.	Gujerati Readers.	Total.	English Readers.	Gujerati Readers.	Total.	English Readers.	Gujerati Readers.	Total.
English	271	186	457	Brahmins	13	4	17	5	3	8	6	4	10	12	3	15
Gujerati.....	136	3	139	Shrawaks	5	3	8	..	3	3	..	3	3	5	3	8
Marathi.....	81	..	81	Missury	3	6	9	..	..	..	1	6	7	2	..	2
Urdu	..	30	30	Purvus	3	..	3	2	..	2	3	..	3	2	..	2
Persian	13	..	13	Kunbi	1	4	5	1	..	1	1	3	4	1	1	2
Canarese	3	..	3	Kshatri	1	2	3	..	4	4	1	2	3	..	4	4
Manuscripts	55	12	67	Marathas	2	..	2	1	..	1	1	..	1	2	..	2
Maps, English	6	..	6	Musulmans.....	2	..	2	1	1	2	1	..	1	2	1	3
Do. Gujerati	4	..	4	Parsee	7	2	9	..	..	..	1	1	2	6	1	7
Files of Newspapers.....	27	15	42	Christians	3	..	3	5	..	5	2	..	2	6	..	6
Total....	596	246	842	.....	40	21	61	15	11	26	17	19	36	38	13	51

(Signed) BHOGILAL PRANWALABDAS,
Secretary in Charge of the G. V. Society.

Ahmedabad, 24th February 1853.

NATIVE LIBRARY AT TANNA.

No. 28 of 1853.

To the Secretary to the Board of Education,
Bombay.

Sir,—I have the honor to forward an original letter, dated the 6th instant, from the Secretary to the Tanna Native Library, submitting an annual report on the working of that institution, which I request you will be good enough to lay before the Board.

I have the honor to be, Sir,
Your most obedient Servant,
(Signed) C. H. Cameron,
Acting Assistant Judge and Session Judge, in charge.

Conkan, Court of Adawlut, 13th January 1853.

To J. R. Morgan, Esq., Acting Judge of the Conkan.

Sir,—In compliance with the Government Circular letter No. 3477, dated 3rd September 1850, I have been directed by the Committee of the Tanna Native Library to submit an annual report on the working of this institution, for transmission to the Board of Education.

2. There was a balance in favour of the Library, on the 1st January 1852, of Rs. 164-5-6. Since that time Rs. 762-3-7 have been received on account of donations and subscriptions, out of which Rs. 182-13-0 have been laid out on the purchase of English, Marathi, and Gujerathi Books. The following detail will show the expenses, incurred during the year under report, for keeping up the library :—

Establishment charges.....	Rs. 156	0	0
Subscriptions to newspapers	19	4	0
Postages	129	1	0
Contingencies	62	8	10
House rent	72	0	0
	Rs. 438	13	10

3. The number of subscribers to the library is 93, of whom 11 are Europeans, and 82 Natives ; the average monthly subscrip-

tions amount to Rs. 65, which, as compared with the previous year, exhibits an increase of Rs. 8.

4. The library, since its establishment in 1851, has been every day much frequented by almost all the subscribers, with the exception of a very few Carkoons, who sometimes take volumes out of the library to read at home. On the whole the library is in a flourishing condition, as will appear from the monthly income, which is a very large one for a town of small importance like this.

5. The library is much indebted to Government and the Board of Education for their kind presents of English and Vernacular publications, issued under their patronage.

6. The subjoined is the table showing the numbers of volumes which enrich the shelves of the library, including purchases and presents :—

English Volumes		440
Maps and illustrations		13
Vernacular books		94
Hindi	ditto	14
Gujerathi	ditto	55
Canarese	ditto	4
Oordoo	ditto	24
Pamphlets		40
	Total	684

which, if compared with the Poona Library, is but very limited.

7. The books most anxiously looked for and appreciated by the readers are those of history, biography, light reading, &c., and the library is, I am happy to report, in possession of all the newspapers, periodicals and pamphlets, of which a very few are subscribed for, the rest being supplied gratis through the medium of some Europeans, Native members, and editors.

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) HENRY PITMAN, Secretary.

Tanna, Native Library, 6th January 1853.

APPENDIX No. XVIII.

ANNUAL REPORT

OF THE

ELPHINSTONE INSTITUTION,

FOR THE YEAR 1852.

ANNUAL REPORT

OF THE

ELPHINSTONE INSTITUTION,

BOMBAY,

FOR THE

YEAR 1852.

Bombay:
PRINTED AT THE
BOMBAY EDUCATION SOCIETY'S PRESS.

1853.

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Establishment,

As on the 1st January 1853.

College.

Designations.	Names.	Salaries.
Principal, and Professor of Political Economy, Logic, Mental and Moral Philosophy	John Harkness, A.M...	Rs. 700
Professor of History and General Literature	Richard T. Reid, LL.B.	500
Professor of Chemistry, Botany, and Geology	Herbert Giraud, M.D.	150
Acting Professor of Mathematics and Natural Philosophy	Dadabhai Naorozji.	300

Central School.

Master.....William Draper, A.M.

Assistant Masters.

Bamanji Pestanji.	Edalji Nushirvanji.
Ardashir Framji.	Babji Amritrao.
Govind Gangadhar.	Nushirvanji Naorozji.
Jahanghir Barjodji.	Khurshedji Manekji.
Mohanlal Ranchoddas.	Bal Bhaskar.
Kaikhosru Hormazji.	Harichand Janardhan.

Sanscrita Teacher.

Keshava Sakharam, Shastri.

Vernacular Teachers.

Gujaráti.	*Maráthi.*
Ranchoddas Ghirdharlal.	Venkatesh Babacharia.
Mansukha Narsidas.	Bal Parasharam, Shastri.

Branch Schools.

Mumbadevi.

Designations.	Names.
Master...	Kavazji Shapurji.
Assistant Masters.....	Gangadas Keshoddas. Maneksha Beramji. Namdeva Narayan.
Vernacular Teacher.....	Motiram Maneklal.

Fort.

Master.....	Jamshedji Rustamji.
Assistant Masters.....	Kavazji Nushirvanji. Edalji Nanabhai. Sorabji Edalji.
Vernacular Teacher.....	Karsandas Mulji.

ANNUAL EXAMINATION,

DECEMBER 1852.

(Circular.)

The Annual Examination will commence at the Institution, on Monday the 29th instant, at 11 A. M., and will be conducted in the following order, viz :—

I.—BRANCH SCHOOLS.

Days.	Schools.	Class.	No. of Classes.	No. of Pupils.	
				Maráthi.	Gujaráti.
Monday, 29th.	Mumbadevi..	I. II. III.	5	42	83
Tuesday, 30th.	Fort.....	II. III.	4	..	137

II.—CENTRAL SCHOOL.

Language and General Knowledge.					Arithmetic.		
Days.	Class.	Division.	No. of Classes.	No. of Pupils.	Class.	No. of Classes.	No. of Pupils.
Wednesday, 1st.	V.	1st & 2nd, Guj...	2	82	III. IV.	4	165
Thursday, 2nd...	V.	Mar.....	3	116	III. IV.	3	102
	IV.	1st & 2nd, Guj.					
Friday, 3rd.....	IV.	Mar.....	3	98	IV. V.	3	104
	III.	1st & 2nd, Mar.					
Saturday, 4th...	IV.	3rd, Guj.....	4	154	V.	2	79
	III.	1st, 2nd & 3rd, Guj.....					
		*Total.....450			Total.....450		

* Exclusive of the VI. (or Candidate) Class, of which there are two Divisions, containing 71 Pupils.

III.—COLLEGE.

CANDIDATES.

Subjects. From 11 to 2, Vivâ voce.	Subjects. From 2 to 5, Paper.	Days.	
English Language.	Mathematics.	*Monday,*	6*th.*
Mathematics.	History.	*Tuesday,*	7*th.*
History.	Translation.	*Wednesday,*	8*th.*
		Thursday,	9*th.*
		Friday,	10*th.*
		Saturday,	11*th.*

SECOND YEAR'S STUDENTS.

Subjects. From 11 to 2, Paper.	Subjects. From 2 to 5, Vivâ voce.
Translation.	
Political Economy.	English Literature.
Chemistry and Geology.	Chemistry & Botany.
History.	Political Economy.
Mathematics.	History.
English Literature.	Mathematics.

FIRST YEAR'S STUDENTS.

Subjects. From 11 to 2, Vivâ voce.	Subjects. From 2 to 5, Paper.	Days.	
English Literature.	Political Economy.	*Monday,*	13*th.*
Political Economy.	History.	*Tuesday,*	14*th.*
Chemistry.	Chemistry.	*Wednesday,*	15*th.*
History.	Mathematics.	*Thursday,*	16*th.*
Mathematics.	Logic.	*Friday,*	17*th.*
	Translation.	*Saturday,*	18*th.*

THIRD YEAR'S STUDENTS.

Subjects. From 11 to 2, Paper.	Subjects. From 2 to 5, Vivâ voce.
Vernacular Essay.	
Logic.	English Literature.
Chemistry and Geology.	Chemistry & Botany.
Jurisprudence.	Logic.
Mechanics.	Jurisprudence.
Mental Philosophy.	Mechanics.

FOURTH YEAR'S STUDENTS.*

Subjects. From 11 to 2, Paper.	Days.	Subjects. From 2 to 5, Vivâ voce.
Ethics. Astronomy.	*Thursday, 9th.* *Friday, 10th.*	Astronomy. Ethics.

* In other subjects, along with the Third Year's Students.

SUBJECTS AND BOOKS.

BRANCH SCHOOLS.

English.—M'Culloch's First, Second, and Third, Reading Books; Chambers' Moral Class-Book; Reid's Rudiments of English Grammar.

Vernacular and English.—Idiomatic Exercises; Mr. Green's Phrases.

Vernacular.—Moral Class Book; Memoir of Columbus.

Arithmetic.—Reduction; Compound Rules; Simple Proportion.

CENTRAL SCHOOL.

English.—Chambers' Moral Class-Book; M'Culloch's Series of Lessons, Grammar, and Course of Reading.

Geography.—Reid's Elements; Nicholl's Grammar.

History.—Wilson's Universal History; Chambers' History of the British Empire; Marshman's History of India; Taylor's Manuals.

Vernacular and English.—Idiomatic Exercises; Mr. Green's Phrases.

Vernacular.—Introduction to the History of India; Moral Class-Book; Memoir of Columbus.
Arithmetic.—Common Rules.
Algebra.—As far as Quadratic Equations.
Geometry.—First Six Books of Euclid.
Trigonometry.—Plane, Young's.
Popular Physics.—Matter and Motion (Chambers' Course).
Sanscrita.—Shabda Rupávali; Hitopadesha; Vákya Ratnávali.
Persian.—Majmá-ul Faváed.

COLLEGE.

Candidates for Clare (Junior) Scholarships.

English Language.—M'Culloch's Course of Reading.
History.—Marshman's History of India; Taylor's Manuals, with the omissions specified in the Regulations.
Geography.—General, of the Four Quarters; Particular, of Hindustan.
Geometry.—Chambers', the First Six Books.
Algebra.—Young's, as far as Quadratic Equations.
Plane Trigonometry.—Young's, omitting Articles 27, 28, 31.
Popular Physics.—Chambers' Matter and Motion, pp. 44.
Translation.—

FIRST YEAR'S STUDENTS.

English Literature.—*Poetry,*—Richardson's Selections:—Rogers, Campbell, Moore, Keats, and Wordsworth (50 columns). *Prose,*—Citizen of the World, Essays 26—45; Macaulay's Clive, W. Hastings; Ranke's Popes.
History.—Heeren's European States and Colonies, Part I.; Smyth's Lectures, 1st Series, 9—14, 21; Guizot's Discourse on the English Revolution; Schiller's Thirty Years' War; Murray's India, Chapters i.—v.
Political Economy.—Burton's Principles of Political and Social Economy, Chapters i.—viii.; Mill's, Book III.

Logic.—Easy Lessons on Reasoning, the whole.

Mathematics.—Spherical Trigonometry, Thomson, Sections III. IV. VI. VII.; Logarithms: Theory of Equations, Young, Chapters i.—vii., x.

Chemistry.—Inorganic Chemistry.

SECOND YEAR'S STUDENTS.

English Literature.—*Poetry,*—Richardson's Selections:—Dryden, Pope, Gray, Collins (70 columns). *Prose,*—Chambers' Cyclopedia: Essayists and Miscellaneous Writers of 5th and 6th periods (186 columns).

History.—Heeren's European States and Colonies, Part II.; Smyth's Lectures, 1st Series, 22, 23, 26, 28, 29; Macaulay's Essays:—Sir Wm. Temple, Spanish Succession, Frederic the Great, and Lord Chatham; Mignet's French Revolution, Chapters i.—xiii.

Political Economy.—Mill's, Books II.—IV.

Mathematics.—Differential Calculus (Young); First Principles of Integral Calculus, (Young,) Chapters i. ii.

Chemistry.—Inorganic and Organic.

Botany.—Descriptive and Systematic Botany.

Geology—Elements of.

THIRD YEAR'S STUDENTS.

English Literature.—Milton's Paradise Lost, Books III. IV.; Shakespeare's Hamlet; Schlegel's Dramatic Literature, Lectures 22, 23, 27, 30.

Jurisprudence.—Lectures.

Logic.—Mill's, Book III., Book IV., Chapters i.—iv., Book VI.

Mental Philosophy.—Stewart's Philosophy of the Human Mind, Introduction, Chapters i.—iv.

Mechanics.—Dynamics (Young's).

Botany.—Descriptive and Systematic Botany.

Geology—Elements of.

FOURTH YEAR'S STUDENTS.

Ethics.—Butler's Analogy, Part I., Three Sermons on Human Nature, Dissertation on Virtue; Smith's View of Moral Systems, Sects. 1, 2.

Mathematics.—Optics (Lloyd), Chapter on Lenses; Astronomy, (Maddy) Chapters i.—iv.

JOHN HARKNESS, A.M.,
Principal.

Elphinstone Institution,
Bombay, 27th November 1852.

I.—BRANCH SCHOOLS.

MUMBADEVI.

Examiner,

LANGUAGE AND GENERAL KNOWLEDGE...Prof. HARKNESS.

FIRST CLASS.

Gujarati Division.

Teacher, KAVAZJI SHAPURJI.

Number of Pupils 32
Number present at Examination.. 31

Studies.

English—M'Culloch's First and Second Books, the whole.
Gujarati—Moral Class-Book, pp. 100.

2. The upper half of the class read English pretty fluently; translation not sufficiently exact.

3. Gujarati reading fair; parsing indifferent; write from dictation with tolerable accuracy.

4. *Marathi Division.*

Teacher, NAMDEVA NARAYAN.

Number of Pupils 23
Number present at Examination.. 22

Studies.

English—M'Culloch's First and Second Books, the whole.
Marathi—Moral Class-Book, pp. 120.

5. In reading English not quite equal to the Gujarati Division ; distinguish the parts of speech.

6. Marathi reading tolerably good ; parsing apparently by rote.

---

7. SECOND CLASS.

Gujarati Division.

Teachers, GANGADAS KESHODDAS.
MOTIRAM MANEKLAL.

Number of Pupils..... 22
Number present at Examination.. 20

Studies.

English—M'Culloch's Third Book, pp. 62.
English and Gujarati—Green's Phrases, pp. 17.
Gujarati—Moral Class-Book, pp. 169.

8. Read English with tolerable fluency and accuracy ; parse correctly ; answer readily both in English and Gujarati, so far as they have learnt in the Phrases.

9. Gujarati reading good ; parsing indifferent ; writing from dictation in both languages fair.

---

10. *Marathi Division.*

Teacher, HARICHAND JANARDHAN.

Number of Pupils 19
Number present at Examination.. 19

Studies.

English—M'Culloch's Third Book, pp. 84.
English and Marathi—Idiomatic Exercises, pp. 26.
Marathi—Moral Class-Book, the whole.

11. Read English tolerably well for the time ; parts of speech correctly given ; Idiomatic Exercises carefully prepared by the upper half of the class.

12. Marathi reading good. In all these classes parsing seems to be an exercise of memory rather than of judgment.

13. THIRD CLASS.

Gujarati Division.

Teachers, MANEKSHA BERAMJI.
MOTIRAM MANEKLAL.

Number of Pupils..... 29
Number present at Examination... 26

Studies.

English—M'Culloch's Third Book, the whole ; Chambers' Moral Class-Book, pp. 31 ; Reid's Rudiments of English Grammar, pp. 12.
English and Gujarati—Green's Phrases, pp. 31.
Gujarati—Memoir of Columbus, pp. 50.

14. Reading and parsing not quite equal to that of boys of the same standing formerly in the Central School.

15. In Gujarati reading and Grammar, much the same as the two lower classes. The progress apparently does not go beyond a certain limit.

---

16. FORT.

SECOND CLASS.

2nd Division.

Teachers, SORABJI EDALJI.
KARSANDAS MULJI.

Number of Pupils..... 45
Number present at Examination... 42

Studies.

English—M'Culloch's Second Book, the whole ; Third Book, pp. 27.
Gujarati—Moral Class-Book, pp. 119.

17. Read English pretty fluently, and distinguish the parts of speech.

18. Vernacular reading good ; parsing fair.

19. 1*st Division.*

Teachers, EDALJI NANABHAI.
KARSANDAS MULJI.

Number of Pupils 33
Number present at Examination.. 30

Studies.

English—M'Culloch's Third Book, pp. 102.
Gujarati—Moral Class-Book, pp. 162.

20. Pronunciation good ; distinguish accurately the parts of speech.

21. Vernacular reading distinct, and in a natural tone of voice ; Grammar indifferent.

---

22. THIRD CLASS.

2nd Division.

Teachers, KAVAZJI NUSHIRVANJI.
KARSANDAS MULJI.

Number of Pupils 30
Number present at Examination.. 27

Studies.

English—M'Culloch's Third Book, the whole ; Chambers' Moral Class-Book, pp. 57 ; Reid's Rudiments of English Grammar, pp. 20.
Gujarati—Moral Class-Book, pp. 169.

23. Reading and explanation good down to the bottom of the class ; parsing very fair.

24. Gujarati reading sufficiently fluent, but no attention paid to the modulation of the voice ; parsing inferior.

---

25 1*st Division.*

Teachers, JAMSHEDJI RUSTAMJI.
KARSANDAS MULJI.

Number of Pupils..... 30
Number present at Examination.. 30

Studies.

English—M'Culloch's Third Book, the whole; Moral Class-Book, pp. 65; Reid's Rudiments of English Grammar, pp. 22.

Gujarati—Moral Class-Book, the whole; Outlines of Geography, Asia.

26. English reading and parsing good; about two-thirds of the class also give a correct translation and explanation of what they have read.

27. Here, as well as in the other classes, there is considerable improvement in vernacular reading. In Grammar much still remains to be done. It is not made sufficiently a mental exercise. With the Geography of Asia, as contained in the small class-book, they are familiar.

GENERAL REMARKS.

28. The way in which these Schools have been conducted reflects great credit upon the teachers generally. In particular the manner in which the Head Masters, Kavazji and Jamshedji, have performed their respective duties, deserves the highest commendation. They have maintained order without severity, and have secured, by tact and firmness, the co-operation of their assistants, and the obedience of their pupils.

29. The progress of the boys has not been so rapid as in the Central School. One reason of this obviously is that when one of the teachers is absent on account of sickness, or from other causes, there is no one at hand to supply his place. The teaching of his class is consequently shared among the other Masters, and the time devoted to this is deducted from the teaching of the other classes; whereas, in the Central School, the place of an absent teacher is at once supplied by one of the scholars. This, indeed, has its disadvantages too, as it sometimes withdraws a student from his own lesson. The evil is of less magnitude, however, than when a whole class is made to suffer. Another reason appears to be that the occasions of absence in the Branch Schools are of more frequent occurrence than with the Masters of the Central School. In future the daily attendance of each Master will be marked, as in the Central School, in a book kept for the purpose, and an explanation

will be required for being absent or late. This, I expect, will produce a salutary effect.

30. These Schools are no doubt a great convenience to those who reside in the Fort, or in the Native Town, at a distance from the Institution. But, for the purpose of education, the grand end in view, I have no hesitation in saying that they would be far better under one roof. What is wanted is a large central building, containing a sufficient number of well-ventilated class-rooms. The establishment of preparatory Schools suited to the wants and wishes of the inhabitants of different parts of the island may now be safely left to private enterprise.

II.—CENTRAL SCHOOL.

Examiners,

LANGUAGE AND GENERAL KNOWLEDGE. . . . .Prof. HARKNESS.
GEOGRAPHY AND HISTORY . . . . . .Prof. REID.

THIRD CLASS.

31. *3rd Gujarati Division.*

English Teacher, MAHIPATRAM RUPARAM.
Gujarati, RANCHODDAS GHIRDHARLAL.
Geography, MANCHERJI MERVANJI.

Number of Pupils 41
Number present at Examination. . 32

Studies.

English—Chambers' Moral Class-Book, pp. 75 ; Reid's Rudiments of English Grammar, pp. 17 ; Reid's Geography, pp. 15.
Gujarati and English—Green's Phrases, pp. 16.
Gujarati—Memoir of Columbus, the whole.

32. There are eight or nine promising boys at the top, who read English fluently, and parse tolerably well ; a few are too old for this class.

33. In Vernacular reading and parsing I can observe but little difference. The classes hitherto examined seem to be pretty much upon a par.

34. "Have a tolerably fair notion of the geographical situation of European countries."

---

35. *2nd Gujarati Division.*

English Teacher, KHURSHEDJI MANEKJI.
Gujarati, MOTIRAM BHAGUBHAI.

Number of Pupils..... 43
Number present at Examination.. 41

Studies.

English—Chambers' Moral Class-Book, pp. 62; Reid's Rudiments of English Grammar, pp. 33; Reid's Geography, pp. 20.
Gujarati and English—Memoir of Columbus, pp. 100.

36. Mostly intelligent boys; read distinctly, and know the parts of speech.

37. Vernacular reading particularly good; intonation and action natural and graceful. They do not parse by rote, but exercise their judgment.

38. "Know the outlines of the Geography of Europe and Asia remarkably well."

---

39. *1st Gujarati Division.*

English Teachers, EDALJI NASARVANJI.
NAOROZJI BERAMJI.
Gujarati, MANSUKHRAM NARSIDAS.

Number of Pupils..... 32
Number present at Examination... 31

Studies.

English—Chambers' Moral Class-Book, pp. 110; Reid's Rudiments of English Grammar, pp. 33; Reid's Geography, Europe, Asia, and Africa.
English and Gujarati—Green's Phrases, pp. 47.
Gujarati—Memoir of Columbus, the whole.

40. A number of smart boys; read well for their standing, and parse with accuracy; answering on the Phrases tolerably good.

41. The Vernacular reading fluent, but not so graceful as that of the lower division of the class; parsing also certainly not superior.

42. "Geography very good, and much History in connection with it."

---

43. *2nd Marathi Division.*

English Teacher, BAL BHASKAR.
Marathi, VIENKATESH BABACHARIA.

Number of Pupils.. 31
Number present at Examination.. 31

Studies.

English—Chambers' Moral Class-Book, pp. 44; Reid's Rudiments of English Grammar, pp. 17; Reid's Geography.
English and Marathi—Idiomatic Exercises, pp. 25.
Marathi—Moral Class-Book, pp. 75.

44. Several intelligent-looking boys in the class, but they did not come up to expectation. Pronunciation of English stiff; parsing indifferent; answering in the Idiomatic Exercises tolerably good.

45. Vernacular reading superior; parsing creditable.

46. "Know more of the Geography of India, particularly of the Bombay Presidency, than the former class."

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47. *1st Marathi Division.*

English Teacher, BABAJI AMRITRAO.
Marathi, BAL PARASHARAM.

Number of Pupils.. 36
Number present at Examination.. 34

Studies.

English—Chambers' Moral Class-Book, pp. 80; Reid's English Grammar, pp. 25; Reid's Geography, pp. 26.
English and Marathi—Idiomatic Exercises, pp. 45.
Marathi—Life of Columbus, pp. 40.

48. This class also is composed of fine intelligent boys. Their pronunciation of English and knowledge of Grammar very fair; translation not sufficiently close.

49. Marathi reading and parsing good.

50. "Know the general outlines of the four quarters, and a little of the Geography of India."

FOURTH CLASS.

51. *3rd Gujarati Division.*

English Teachers, NASARWANJI NAOROZJI.
TELAKCHAND MANEKCHAND.
Gujarati, MOTILAL JIVANDAS.

Number of Pupils.. 38
Number present at Examination... 32

Studies.

English—M'Culloch's series of Lessons, pp. 116; M'Culloch's Grammar, pp. 58, and the Rules of Syntax; Reid's Geography.
English and Gujarati—Green's Phrases, pp. 75.
Gujarati—Outlines of the History of India, pp. 50.

52. The appearance of this class is, upon the whole, satisfactory; reading fluent and distinct; pronunciation correct; parsing fair.

53. In writing the Gujarati from dictation, a marked improvement is observable in the orthography. If attention continue to be directed to this point, *Parsi Gujarati* will cease to be synonymous with *corrupt Gujarati.*

54. "Know the outlines of the four quarters remarkably well, but less than they ought of India, and almost nothing of the Bombay Presidency."

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55. *2nd Gujarati Division.*

English Teachers, KAIKHOSRU HORMAZJI.
JAHANGHIR RUSTAMJI.
Gujarati, MOTIRAM BHAGUBHAI.

Number of Pupils 41
Number present at Examination... 34

Studies.

English—M'Culloch's Series of Lessons, pp. 95–135 ; M'Culloch's English Grammar, pp. 79 ; Reid's Geography, Europe and Asia.

English and Gujarati—Green's Phrases, pp. 75.

Gujarati—Moral Class-Book, pp. 162 ; Outlines of History of India, pp. 25.

56. Strangely enough, the boys at the top read worse than the others. They have greater confidence, and read more rapidly, but pay less attention to pronunciation and meaning. Their pronunciation, too, is less accurate. In Grammar and general knowledge they are not only superior to the rest of the class, but absolutely good.

57. Vernacular reading good ; writing from dictation very superior ; parsing indifferent.

58. " The general outlines of Europe and Asia, and the particular Geography of India, have been well and carefully studied. Kaikhosru deserves great credit for the pains he has taken to impart general information. Not a town in India can be mentioned of any celebrity, with the historical antecedents and present condition of which most of the boys are not well acquainted. In this way they have learned much more of Indian History than they probably would have acquired in double the time after a more routine fashion, and under an indifferent teacher."

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59. *1st Gujarati Division.*

English Teachers, MOHANLAL RANCHODDAS.
PESTANJI JAHANGHIR.
Gujarati, MOTILAL JIVANDAS.

Number of Pupils 39
Number present at Examination.. 35

Studies.

English—M'Culloch's Series of Lessons, the whole ; M'Culloch's Grammar ; Reid's Rudiments of Geography, pp. 84 ; Wilson's Universal History, pp. 31.

English and Gujarati—Green's Phrases, pp. 120.
Gujarati—Outlines of History of India, the whole.

60. The appearance of this class is not so satisfactory. Many of the pupils are, or rather were, dull boys, who have not been able to advance with their original class-fellows, and are much older than those with whom they are now associated. They are again being distanced by their younger competitors, and it is not to be expected that they will ever do much credit either to their teachers or themselves; but it is hoped that most of them will learn enough to enable them to earn an honest livelihood in some of the humbler walks of life.

61. In the vernacular they acquitted themselves creditably.

62. "*Geography*—Very fair notion of the outlines of Asia. *History*—Pestanji, a West Scholar, has been teaching them outlines of Ancient History, in which they have all answered very well."

63. *Marathi Division.*

English Teachers (till lately), MADAN SHRICRISHNA.
NARAYAN BALAL, Normal Scholar.
Marathi, BAL PARASHARAM.

Number of Pupils..... 31
Number present at Examination.. 25

Studies.

English—M'Culloch's Series of Lessons, pp. 170; M'Culloch's Grammar, the whole; Reid's Rudiments of Geography.
English and Marathi—Idiomatic Exercises, pp. 75.
Marathi—History of Maharashtra, pp. 50; meaning of Sanscrita Roots.

64. In consequence of the frequent change of teachers of late, this class has laboured under a disadvantage. However, with the exception of four or five boys, who are much older than the others, they have made a creditable appearance.

65. In the vernacular, the result still more satisfactory. The

writing from dictation particularly good; that of the boys at the top mostly quite free from errors.

66. "Know a little of the outlines of Geography, four quarters and India; but should know more of the Geography of India."

FIFTH CLASS.

67. *Marathi Division.*

English Teacher, GOVIND GANGADHAR.
Marathi, VIENKATESH BABACHARYA.

Number of Pupils..... 36
Number present at Examination.. 28

Studies.

English—M'Culloch's Course of Reading, pp. 85; M'Culloch's Grammar, pp. 44; Idiomatic Exercises, pp. 140; Universal History, pp. 31.

Marathi—Life of Columbus, from page 51 to the end; Outlines of History of British India, pp. 40.

68. With few exceptions, the appearance of these boys is not prepossessing. There seems to be a want of animation among them, but they acquit themselves, upon the whole, better than their appearance would lead one to expect. Their memory and judgment have both been exercised. The reading of the majority pretty good; explanation and parsing above mediocrity.

69. In Marathi reading, and Grammar, they passed a creditable examination.

70. "*History and Geography.*—Know a little of the outlines of Universal History, chiefly of Rome, and something of Geography."

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71. *2nd Gujarati Division.*

English Teachers, JAHANGHIR BARJODJI; adn
HORMAZJI EDALJI.
Gujarati, MANSUKHARAM NARSIDAS.

Number of Pupils..... 40
Number present at Examination.. 34

Studies.

English—M'Culloch's Course of Reading, pp. 49; M'Culloch's Grammar, Syntax; Nicholl's Geography, India; Universal History, pp. 42; Chambers' British Empire, pp. 40.

Gujarati—History of India, the whole.

72. Here again, the reading, including pronunciation and accent, of the boys at the top, inferior to that of some boys lower down in the class. The latter, too, are younger, quicker, and altogether more promising boys. In translation and explanation there is a want of precision; something like the meaning is given, but neither in the fewest, nor the most appropriate, terms.

73. In Vernacular reading, and Grammar, nothing deserving particular notice.

74. "Most of the boys have a very creditable knowledge of the Geography of India,—about as much as that prepared by the senior division. They have not, however, made anything like the same progress in other subjects. *History*, upon the whole, very fair, considering that the boys are rather dull as a class. The Master has been very industrious, and has given them much extra information in Ancient History. Most of the boys are acquainted with the facts given in the text book. Hormazji Edalji, a West Scholar, has been teaching a small portion of Chambers' British Empire, in which the answering was very good."

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75. *1st Gujarati Division.*

English Teachers, ARDESAR FRAMJI, and KAHANDAS TAPIDAS.

Gujarati, RANCHODDAS GIRDHARLAL.

Number of Pupils..... 42

Number present at Examination.. 34

Studies.

English—M'Culloch's Course of Reading, pp. 248; Nicholl's Geography, pp. 43; Use of the Globe's Definitions, and first 10 Problems; Chambers' British Empire, pp. 100; Wilson's Universal History, Part 1st, Ancient.

English and Gujarati—Translation, written and *vivâ voce*, into and from the Vernacular.

Gujarati—Life of Columbus, the whole.

76. This class at once gives a favorable impression. The pupils are not mere passive recipients, but enter with spirit upon the business before them. Their reading good; allusions, historical and classical, well explained. In translation they generally give the meaning fully, though sometimes in a rather circuitous way.

77. Vernacular parsing rather inferior.

78. "All are well up in the Geography of India, as far as Reid. They are also tolerably acquainted with the natural productions of the various provinces. The Ancient Geography of Greece, Asia Minor, and Egypt, accompanied with maps, has also been well taught in connection with the history lessons.

79. "The answering in Ancient History quite surprised me, and was very creditable indeed to the industry of Ardesar. Most of the boys answer well, but three in particular—Murlidhar Girdhar, Edalji Nushirwanji, and Dhanjibhai Rustamji—distinguish themselves; the first knows most, but his manner of answering is rather confused; the other two are about equal, and both very clever boys, and young. About 100 pages of the History of the British Empire have been taught very successfully by Kahandas Tapidas, a West Scholar."

SIXTH (OR CANDIDATE) CLASS.

80. *2nd Division.*

Teacher, BAMANJI PESTANJI.

Number of Pupils 38
Number examined 37

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81. *1st Division.*

Master, W. DRAPER, A.M.

Number of Pupils 33
Number examined 29

82. The course of study in both divisions has been that laid down in Art. 13 of the Scholarship Rules. The upper division, taught by Mr. Draper, was composed of the best boys, selected, after a searching examination, at the beginning of the year, and these all, except four, offered themselves as candidates for Clare Scholarships.

83. Seventeen of the lower division, taught by Bamanji, gave in their names as not wishing to compete for Scholarships, but, on being told that this announcement would be sufficient, in their case, to exempt them from the operation of Art. 9, they voluntarily submitted to examination along with the others.

84. The general result, as shown by the number of successful candidates, and by the marks they have obtained, both greater than in any former year, is encouraging ; still there are some things which appear capable of improvement, and to these it is proper to advert, in order that the end to be accomplished may be steadily kept in view.

85. In the *vivâ voce* examination, after a passage had been read, and the less familiar words explained, it was sometimes found that the construction was not understood, the passive voice being mistaken for the active, or the objective for the nominative case,—proving that the scope had not been comprehended.

86. In the written answers, and translations into English, some of the most common words were mis-spelled, though not uniformly in the same way,—showing that the observant faculties had not been duly exercised.

87. In the translations into the vernaculars, I am happy to say an improvement is discernible, both in the orthography and style. The errors met with are attributable, in the great majority of instances, to misconstruction of the original.

88. Now it is scarcely necessary to remark that a habit of accurate observation lies at the very foundation of a sound education: that one purpose of learning a foreign language is, or ought to be, the formation of such a habit, and that without it there is no security against the most mischievous errors. The faculty of interpretation being of general application, the acquisition of this power is not only of far greater importance than a mere knowledge of facts,

but it is one without which there could be no knowledge of the transactions of distant countries or of past ages.

89. Regarding their knowledge of History, Professor Reid remarks,—"The examination in History was partly paper, and partly *vivâ voce*. The paper questions will be found in the Appendix. Twenty-three boys in all, most of them of the senior division, answered over 40 per cent. in the paper, and nineteen in *vivâ voce*. The answering, upon the whole, was very fair ; but I must confess that the result of the *vivâ voce* disappointed me somewhat. The questions, which I had endeavoured to make as simple as possible, were answered with imuch hesitation, and a great deal of confusion."

90. These same pupils have been divided into a Marathi and a Gujarati Division, for Translation and Experimental Physics. The Marathi portion have also been taught the rudiments of Sanscrita by Keshava Shastri, under whom they have read the whole of the Shabda Rupávali, about 200 sentences of the Vákya Ratnávali, and eighteen pages of the Hitopadesha. The effects of this instruction begin to appear in the orthography and style of Marathi writing.

91. An effort was made to give instruction in Persian to the Gujarati Division, and this for a time was successfully carried out by Assistant Professor Dadabhai Naorozji, who kindly volunteered his services ; but when other duties devolved upon him, in consequence of the continued illness of Professor Patton, and it became necessary to relieve him of this extra labour, the class was intrusted to Edalji Nushirvanji, who has since devoted to it two hours a week.

92. I may remark that, as the teaching of Sanscrita has been sanctioned, and its utility recognized, by the Board, it becomes necessary to find some corresponding branch of study for the other division of the class. Hence, even if it were alledged that the study of Persian is not so useful as that of Sanscrita, still, if a knowledge of the one be required, the study of the other is scarcely optional. Both divisions of the class are preparing for the Scholarship Examination. For English Literature, History, and General Knowledge, they are classed according to proficiency in these branches, while, for translation and popular illustrations of Natural Philosophy, they are necessarily arranged according to their vernacular language.

The same arrangement is followed in teaching Sanscrit to the Marathas, and, if the Gujaratis have no corresponding study, they will have fewer lessons and more time to prepare them, and will thus have an advantage over the other section of the class. Independently of this, I believe the Persian will be found quite as useful to the Gujaratis, as Sanscrit to the Marathas; and I beg to recommend that a Munshi be appointed for the purpose of teaching this class Persian two or three hours a week.

GENERAL REMARKS.

93. In last report it was stated, that the pupils had been divided into classes according to their knowledge of English, and that the groups thus formed constituted classes in Arithmetic also, without reference to their progress in that branch of study. Though this was not an arrangement which I should have recommended, yet I did not feel myself at liberty abruptly to alter it, thinking that it would be better for the Institution, and more satisfactory every way, that it should have a fair trial. In consequence of Professor Patton's report of its working, as shown at the annual examination of the classes in Arithmetic, the Board directed, No. 123 of 1852, dated the 15th March, para. 2, that the system should be discontinued. The classes were accordingly remodelled, proficiency in Arithmetic being regarded in the formation of classes for Arithmetic, in the same way as a pupil's fitness for one or other of the English classes is determined by the greater or smaller amount of progress he may have made in that language.

94. There is the same number of classes in Arithmetic as in English, but a class in English is not composed of the same boys as a class in Arithmetic; the reports are therefore necessarily given separately.

95. In the absence of Professor Patton, who had been compelled by serious indisposition to quit Bombay in October last, but whom it was hoped a change of climate might yet restore to health, the examination of the classes in Arithmetic and Mathematics was conducted by Acting Professor Dadabhai Naorozji, whose remarks I subjoin.

(Signed) JOHN HARKNESS, A.M.

P. S.—The Board is already aware that the hopes entertained of Professor Patton's recovery by a change of climate have not been realized, the melancholy intelligence having been received of his death at the Cape on the 18th November last,—a month after leaving Bombay. It is due to his memory to state, that the sad announcement was received here with profound grief, both by his pupils and by all with whom he had been in any way associated. He possessed, in an eminent degree, the power of inspiring others with his own ardour for his favorite pursuits. His learning and talents commanded the respect, while his warm heart and generous disposition secured the affection and esteem, of all who knew him. His loss to the Institution, and to the cause of Native education, will not easily be supplied.

J. H.

BRANCH SCHOOLS.

MUMBADEVI.

Examiner,

ARITHMETIC & MATHEMATICS...Act. Prof. DADABHAI NAOROZJI.

96. FIRST CLASS.

Gujarati Division.

Teacher, KAVAZJI SHAPURJI.

Number of Pupils in the class..... 27
Number present at the Examination..... 27

Studies.

Simple and Compound Rules.

97. The first boy much superior to all the rest; he understands the principles of the Simple and Compound Rules very well; a few of the others know them tolerably well.

98. *Marathi Division.*

Teacher, NAMDEVA NARAYAN.

Number of Pupils in the class..... 20
Number present at the Examination..... 19

Studies.

Simple Rules and Reduction.

99. About half of the class worked correctly the examples given ; only two or three boys at the top understand the reasons of the rules.

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100. SECOND CLASS.

Marathi Division.

Teacher, HARICHAND JANARDHAN.

Number of Pupils in the class..... 22
Number present at the Examination.. 22

Studies.

Simple Proportion.

101. This class passed a pretty fair examination ; a few at the top understand the principles of the Simple Rules, and of Simple Proportion, pretty well.

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102. *2nd Gujarati Division.*

Teacher, GANGADAS KESHODDAS.

Number of Pupils in the class..... 30
Number present at the Examination... 26

Studies.

Simple Proportion.

103. This class and Harichand Janardhan's were examined together, and nearly the same remarks apply to both, except that the boys in this class work much more slowly. From my past experience of Gangadas' mode of teaching, I expected a better appearance from his class.

104. *1st Gujarati Division.*

Teacher, MANEKSHA BERAMJI.

Number of Pupils in the class..... 26
Number present at the Examination... 23

Studies.

Simple Proportion.

105. Some of these boys work very quickly, and understand the principles of the rules very well. General appearance respectable.

FORT.

106. FIRST CLASS.

Teacher, SORABJI EDALJI.

Number of Pupils in the class..... 48
Number present at the Examination... 45

Studies.

Reduction.

107. Some boys at the top much superior to the others. A fair proportion of the class understand the reasons of the Simple Rules, and of the Rules of Reduction, well. General appearance of the class, fair.

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108. SECOND CLASS.

Teacher, EDALJI NANABHAI.

Number of Pupils in the class..... 34
Number present at the Examination... 32

Studies.

Compound Rules.

109. Some of these boys work very slowly. In general appearance inferior to Sorabji's class. A small portion of the class understand the reasons of the Simple and Compound Rules, well.

110. THIRD CLASS.

2nd Division.

Teacher, KAVAZJI NASARVANJI.

Number of Pupils in the class..... 28
Number present at the Examination..... 28

Studies.

Simple Proportion.

111. About half of the class worked correctly; the principles of Simple Proportion not very distinctly understood; general condition pretty good.

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112. *1st Division.*

Teacher, JAMSHEDJI RUSTAMJI.

Number of Pupils in the class..... 27
Number present at the Examination..... 26

Studies.

Compound Proportion.

113. Nearly the whole class worked the examples correctly, and understood the principles of Simple and Compound Proportion.

CENTRAL SCHOOL.

114. THIRD CLASS.

3rd Gujarati Division.

Teacher, MAHIPATRAM RUPARAM.

Number of Pupils in the class..... 42
Number present at the Examination .. 32

Studies.

Simple Proportion.

115. This class seems to have done but little during the year. In what they professed to have done, however, they passed a pretty fair examination.

116. *2nd Gujarati Division.*

Teacher, KHURSHEDJI MANEKJI.

Number of Pupils in the class..... 42
Number present at the Examination..... 41

Studies.

Simple Proportion.

117. This class also appears to have made little progress during the year; and, in the little professed to have been learnt, only a small portion passed a good examination.

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118. *1st Gujarati Division.*

Teacher, EDALJI NASARVANJI.

Number of Pupils in the class..... 41
Number present at the Examination..... 41

Studies.

Compound Proportion.

119. More than half the number failed in working correctly the examples proposed. Edalji must have taken great pains, however, to make such a large portion of the class understand the principles of Compound Proportion.

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120. *2nd Marathi Division.*

Teacher, BAL BHASKAR.

Number of Pupils in the class..... 27
Number present at the Examination... 27

Studies.

Simple Proportion.

121. The examples proposed were worked by nearly half of the class, but the reasons of the rules were imperfectly understood, even by the best.

122. *1st Marathi Division.*

Teacher, BABAJI AMRITRAO.

Number of Pupils in the class..... 34
Number present at the Examination... 30

123. The same remarks apply to this as to Bal Bhaskar's class.

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124. FOURTH CLASS.

3rd Gujarati Division.

Teacher, NASARVANJI NAOROZJI.

Number of Pupils in the class..... 40
Number present at the Examination... 35

Studies.

Simple and Compound Proportion; Simple Interest; and Vulgar Fractions.

125. Nearly four-fifths of the class worked the examples proposed. The principles of the first rules of Vulgar Fractions have been very well explained by the teacher, for a large portion of the class answered with confidence.

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126. *2nd Gujarati Division.*

Teacher, KAIKHOSRU HORMAZJI.

Number of Pupils in the class..... 33
Number present at the Examination.. 27

Studies

Simple and Compound Proportion; Vulgar Fractions.

127. The examples were dictated in English. About two-thirds worked correctly, and a fair proportion understood the first principles of Vulgar Fractions very well.

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128. *1st Gujarati Division.*

Teacher, MOHANLAL RANCHODDAS.

Number of Pupils in the class..... 40
Number present at the Examination.. 36

Studies.

Vulgar and Decimal Fractions, Involution, Evolution, and Compound Interest.

129. Nearly three-fourths of the class failed in working the examples given. A few boys explained the reasons of the different rules learnt by them, tolerably well.

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130. *Marathi Division.*

Teacher, MADAN SHRICRISHNA *(till lately.)*

Number of Pupils in the class..... 41
Number present at the Examination..... 32

Studies.

Vulgar Fractions.

131. About a fourth part of the boys worked correctly, but of these only two or three could explain the principles of Vulgar Fractions.

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132. FIFTH CLASS.

2nd Gujarati Division.

Teacher, JAHANGHIR BARJODJI.

Number of Pupils in the class..... 46
Number present at the Examination..... 39

Studies.

Young's Algebra, as far as Involution and Evolution; Chambers' Geometry, 40 Propositions of the 1st Book.

133. More than half failed to work correctly the examples proposed. A few could explain the principles of the rules of Algebra, and the nature of the reasoning employed in the propositions of Euclid.

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134. *1st Gujarati Division.*

Teacher, ARDESHIR FRAMJI.

Number of Pupils in the class..... 33
Number present at the Examination ... 27

Studies.

Young's Algebra, Quadratic Equations of one unknown quantity; Chambers' Geometry, 3 Books, with Exercises on the First and Second.

135. In Geometry almost the whole class passed a very creditable examination; in Algebra they were somewhat deficient.

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136. *Marathi Division.*

Teacher, GOVIND GANGADHAR.

Number of Pupils in the class..... 31
Number present at the Examination .. 25

Studies.

Young's Algebra, as far as Involution and Evolution.

137. This class was taken by Govind Gangadhar in August. Only one boy very good; four or five boys very deficient, even in Arithmetic. Under Govind, however, I expect a much better class next year.

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138. SIXTH (OR CANDIDATE) CLASS.

2nd Division.

Teacher, BAMANJI PESTANJI.

Number of Pupils in the class..... 38

Of whom 21 were candidates for Clare Scholarships.

Studies.

Geometry, Six Books of Euclid; Algebra, Quadratic Equations; Plane Trigonometry.

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139. *1st Division.*

Master, MR. DRAPER.

Number of Pupils in the class.. 33

Of whom 29 were candidates for Clare Scholarships.

Studies.

The same as in the Second Division.

140. These two Divisions were examined together; the candidates for Scholarships both on paper and *vivâ voce*, the rest on paper only.

141. Mr. Draper's class has passed a very creditable examination, 7 boys having obtained marks above 60 per cent., and 16 above 40 per cent.

142. One boy of Bamanji's class also has obtained above 60 per cent. of marks, and 8 above 40. Bamanji, however, must have worked hard to bring up his class to its present condition, for the best boys were selected for the 1st Division.

143. Though Mancherji Dorabji has the highest numbers upon the whole, the best paper is that of Jagannath Narayan, which I beg to forward herewith, as written in the Examination hall.

144. In addition to the 50 candidates from Mr. Draper's and Bamanji's classes, there were two others, Hormazji Dadabhai and Dadabhai Rustamji, the former of whom had left the Institution in February 1851, and the latter in June 1852.

145. These two classes also received instruction two hours a week in Natural Philosophy; the Gujarati Division being taught by Ardeshir Framji after I left it in the beginning of August, and the Marathi Division by Narayan Bhai.

146. Both Divisions have very carefully studied the first part of Chambers' Matter and Motion, on the Essential and Accidental Properties of Matter.

147. The boys of Ardeshir's class have much more clear and distinct notions of many principles and processes than those of the Marathi Division; not, however, because Narayan Bhai did not take sufficient pains with his class, but because he did not illustrate his explanations with so many experiments as Ardeshir did.

148. Some knowledge of the Rudiments of Natural Philosophy at this stage of a pupil's progress is very useful in his future scientific studies in the College Department. Besides, this subject actually forms a part of the studies of the Candidate Classes at present. I would, therefore, suggest that the Rudiments of Natural Philosophy should be included in the qualifications for Clare Scholarships.

III.—COLLEGE.

1. LOGIC; POLITICAL ECONOMY; MENTAL AND MORAL PHILOSOPHY.

FIRST YEAR'S STUDENTS—*Number* 24.

149. To prevent mistakes it is necessary to explain that, in consequence of the annual Scholarship Examination having been changed from April to December, as sanctioned by the Board, letter No. 123 of 1852, dated 15th March, it has been found convenient to describe the students, on this occasion, as students of the year completed on the 1st June, regarding the intervening months as intercalary months of the Scholarship year.

150. After mature consideration of the Board's letter above referred to, para. 12, and taking into account the number of works that had been ordered out from England as text-books, which were still in the Depository, it was deemed expedient to defer revising the scheme of study till a more favorable opportunity.

151. Hence instead of taking up Locke in this class as had been proposed, an elementary course of Logic was given, the text-book being that previously in use, namely "Easy Lessons on Reasoning" (Whately's). After finishing this, the Third Book of Mill's Principles of Political Economy was carefully studied. In both subjects the lessons were accompanied by familiar explanations and comments, the attention of the students being directed to the form of the expression, as well as the matter.

152. The specimens given in Appendix E will sufficiently show the quality of the answering.

153. It will be seen from Appendix F that nine students of this class have left the Institution during the year, some of them being among the most promising in the class.

SECOND YEAR'S STUDENTS—*Number* 13.

154. This class had read a portion of the Second Book of Mill's

Principles of Political Economy last year. They have revised this, and carefully studied the remainder of the Second and the whole of the Third and Fourth Books during the term.

155. In the *vivâ voce* examination the answers were not given fluently, which, indeed, could scarcely be expected; but they were generally sound. When a failure occurred, it was in most cases observable that the question had been imperfectly apprehended.

156. The written answers give proof of attention and memory on the part of the students. There are some errors in spelling, and occasionally a little redundancy in the style; but the result is, upon the whole, creditable.

157. These students have had a great many other subjects to attend to. I think it injudicious to oppress the mind of the learner. A great excellence of the English University system, it is generally believed, lies in the degree to which it calls out voluntary energies and *con amore* study. A habit of thinking is more readily formed in this way than by compulsory exercises.

THIRD YEAR'S STUDENTS—*Number* 4.

158. In the course of the year the number of students in this class was reduced from 9 to 4.

159. On the Logic of Induction the whole of Mill's Third Book, and Chapters I.—IV. of Book Fourth were gone over, as well as a good deal of collateral reading from Whewell, Hallam, Macaulay, and the Edinburgh Review. The Logic of the Moral Sciences, as treated in Book Sixth, was then carefully studied. The written answers of two out of the four students examined are forwarded herewith. They are handed up merely to show what has actually been done.

160. The Introduction and Chapters I.—IV. of Stewart's Philosophy of the Human Mind were read, with the relative notes in Sir W. Hamilton's edition of Reid's works.

161. The written answers on this subject are not equal to those on Logic. This is probably owing, in part, to the circumstance that the examination took place at the end of the week, when the students were exhausted, and one of them, Pestanji, was sick; but chiefly, I believe, from their being required, in the one case, merely to state

the doctrine of their text-book, instead of being called upon, as in the other, to weigh conflicting opinions—which appears to have perplexed them. Still, as a mental exercise, it has no doubt been beneficial. Pestanji Jahanghir and Hormazji Edalji are both promising young men.

FOURTH YEAR'S STUDENTS—*Number* 1.

162. At the examination there was only one student in this class, Vishvanath Narayan, who came out first at the previous examination, having left the Institution the month before, to fill the situation of Head Clerk in the Political Agent's Office at Katch. The stimulus of competition was therefore wanting. I should mention, too, that the remaining student had been frequently absent during the term, in consequence of domestic circumstances.

163. The studies of the class had embraced Butler's Analogy, Part I.; Butler's Three Sermons on Human Nature, and Dissertation on Virtue; Smith's View of Moral Systems.

164. The answers to the forenoon paper set, which I forbear to criticise, are given in Appendix E.

GENERAL REMARKS.

165. From the short time that has elapsed since the introduction of the new Scholarship Rules, it is not possible to calculate to what extent the number of students in the senior classes will be affected by the change. Now that all restrictions have been removed, and that a scholar is at liberty to resign his Scholarship at whatever stage of his progress he may think fit, it would seem probable that the numbers would diminish more rapidly. But, on the other hand, in consequence of this freedom, the numbers in the junior classes may be increased.

166. In a quadrennial curriculum I think the subject of Moral Philosophy is properly assigned to the last year, but, under existing circumstances, I propose, with the sanction of the Board, to make it the business of the Third Year's Students.

JOHN HARKNESS, A. M.

2. LITERATURE, HISTORY, AND JURISPRUDENCE.

In the following Report I shall treat of each subject of study separately.

(a) Literature.

167. In Literature, including Prose, Poetry, and English Composition, there were, prior to June, 4 classes; but since then the Third and Fourth Year's Students have formed one class.

168. The *First Year's Students* have read 50 columns of Richardson's Selections from Rogers, Campbell, Moore, Keats, and Wordsworth; Goldsmith's Citizen of the World, Essays 26—45; and three of Macaulay's Essays.

169. Exercises in English Composition were read in class twice a week. The number of Essays examined were in all 297, being about an average of 12 exercises from each student.

169. From the Table of Marks it will be seen that out of 25 present at the Annual Examination, 13 have answered 60 per cent. or upwards, of the questions proposed, and only 6, all of whom are paying students, under 40 per cent.

170. The *Second Year's Students* have read, for the Scholarship Examination, 60 columns of Richardson's Selections from Dryden, Pope, Gray, and Collins; and 186 columns from Chambers' Cyclopædia of English Literature, Essayists and miscellaneous Writers of the 5th and 6th Periods, being selections from the prose writings of Addison, Steele, Defoe, Swift, Pope, Bolingbrooke, Johnson, Goldsmith, Burke, and others, with historical and critical notices.

171. As exercises in English Composition, seven rather long Essays on literary and historical subjects were written by each student. These Compositions, amounting in all to 98, were criticised in class once a week.

172. Out of 12 scholars present at the Examination, 8 have answered upwards of 60 per cent., and only 2 below 40 per cent. This class has this year fully maintained its character of having a greater number of good men than any other in the College.

173. The *Third Year's Students*, prior to joining the Senior Division, read, in continuation of their former year's course, Books III. and IV. of Paradise Lost; and some few selections from Jeffrey's Essays.

175. Since June the *3rd and 4th Year's Students* have read together Shakespeare's Hamlet; and Schlegel's Dramatic Art and Literature, Lectures 22, 23, 27—30. The portion of Schlegel studied (120 pages) treats of the Modern European Drama, chiefly the English. The whole was explained in class as a lesson in Prose Literature; and subsequently made up for the Scholarship Examination.

176. A supply of Richardson's Selections from Bacon's Essays had been ordered from Calcutta for the Senior Class, but did not arrive until the Scholarship business had already been fixed.

177. With the exception of one paper on Chambers' Cyclopædia, to a selection of the answers to which I beg to direct attention, the Literature examinations, both in Prose and Poetry, were all oral. The passage from the text-book on each occasion was, at my request, selected by Mr. Harkness, who also awarded the mark to each student.

(b) HISTORY.

178. Throughout the year two classes have been studying the History of Modern Europe and its Colonies. The *First Year's Students*, who commenced the course in January, have got over the first half of the subject, from the Portuguese discoveries in the age of "the Navigator" to the Peace of Westphalia (1648); and the *Second Year's Students*, who had read thus far in the former year, have now completed the course to the close of the first French Revolution.

179. The amount of reading made up by each class for the Scholarship Examination will be found specified in the Programme. The *paper* questions, with specimens of the answers, are given in the Appendix. I have not thought it necessary this year to forward the *vivâ voce* questions.

180. It will be seen, from the Table of Results, that, of the First Year's Students, 7 out of 25 have answered upwards of 60 per cent., and only 6, below 40 per cent.; and that, of the Second Year's Students, 8 out of 13 have answered upwards of 60 per cent.

181. The *Third Year's Students*, prior to joining the Senior Class, read the short course on the "History of Civilization," of

which an outline was given in my last report; Ferguson's Civil Society being, as in former year, the text-book.

182. With regard to Ancient History, in which there has been no class in the College during the past year, the present (1853) First and Second Year's Students have already acquired a very respectable knowledge of the subject, while in the Candidate Class of the Upper School, as the results of the last two Scholarship Examinations abundantly prove; but the Third and Fourth Year's Students, whose historical studies before entrance were not so extensive, might perhaps, now that they have completed the course in Modern History, (which, I need scarcely observe, I consider of infinitely greater importance,) proceed to acquire a more extensive acquaintance with *Ancient History*, using Heeren's Manual as a text-book, and filling up from the Researches of the same writer, and from Grote and Arnold.

183. The Senior Students might also, perhaps, read during the coming year a short course on the *History of the Middle Ages* from Hallam and Gibbon, somewhat similar to that read by the late Fourth Year's Students in three months, of which an outline was given in a former report.

184. I shall conclude this portion of the report by reducing to a tabular form the course, on the *History of Europe and its Colonies*, which, with some slight modification, has now been read, either wholly or in part, by about 100 students. The average time occupied in reading it has been about two years.

Course in the History of Modern Europe and its Colonies.

General Works. { Heeren's States and Colonies ; First Period,† ; Second Period‡.
Smyth's Lectures, 1st Series, †IX.—XIV., XXI., and ‡XXII., XXIII., XVI., XVIII., XXIX.

Era.	Subjects.	Special Works.	Remarks.
1453—1515	Decline of Italy, and Rise of Portugal : Preliminary View of Europe at the fall of Constantinople ; French and Spanish Invasions of Italy ; Portuguese Discoveries and Conquests.	§ Sismondi's Italian Republics (Lardner's Cyclopædia), chapters ix.—xv. † Murray's India, chapters iii. iv.	With the exception of the works thus marked*, the First Year's Students of 1852 have read and made up for Class Examinations the History of the four first Eras ; and out of this course the portions marked † have been prepared for the Scholarship Examination in December.
1515—1559	Age of Charles V. : Formation of the Spanish Monarchy ; American Colonies ; Rivalry between Spain and France ; Political View of the Reformation ; Influence of Religion on Politics.	† Macaulay's Review of Ranke's Popes.	
1559—1609	Age of Elizabeth : Retrospect of England under the Tudors,—Laws and Literature ; Revolt of the Netherlands ; Rivalry between England and Spain ; Commercial progress of English and Dutch ; Civil and Religious Wars in France.	* Hume's England, chapters xxv.—xliv., and Appendices III. IV. Grattan's Netherlands (Lardner's Cyclopædia), chapters vii.—xv. Crowe's France (Lardner's Cyclopædia), vol. i. chapters vi.—x.	
1609—1660	Thirty Years' Wars, and English Revolution : Retrospect of Northern Europe ; Polish and Swedish Wars ; Thirty Years' War,—Gustavus Adolphus ; Civil Wars in England,—Cromwell ; France,—Richelieu and Mazarine ; British Settlement in America.	† Schiller's History of the Thirty Years' War (Bohn's Edition). † Guizot's Discourse on the English Revolution. Robertson's America, Books IX. X.	

Era.	Subjects.	Special Works.	Remarks.
1660—1700	AGE OF LOUIS XIV.: Influence of Money on Politics; Mercantile System; Internal state of France; Colbert's Colonial Policy. European Contests,—Triple Alliance, League of Augsburg; Turkish Wars; Restoration in England; William III.	Heeren. Smyth's Lectures, (2nd Series) I. II. Crowe's France, vol. II. chapters iv. v. ‡ Macaulay's Essay on Sir William Temple. Guizot (as above).	The history of the last four Eras has been studied by the Second Year's Class of 1852, and the portions thus marked ‡ made up for the Scholarship Examination in December.
1700—1740	PREPONDERANCE OF ENGLAND IN EUROPE; Wars of the Spanish Succession,—Marlbrough; Sir R. Walpole's Administration; Orleans Regency in France; Cardinal Fleury.	‡ Macaulay's Essay on Lord Mahon's History. Crowe's France, vol. II. chapters vi. vii.	
1741—1786	AGE OF FREDERIC THE GREAT: Characteristics; Wars of the Austrian Succession; Seven Years' Wars; Partition of Poland; French and English Colonial Wars; American War; Anglo-Indian Empire.	‡ "Frederic the Great," Edinburgh Review, April 1842. History of Poland. ‡ Macaulay's Lord Chatham, Lord Clive, and Warren Hastings.	§ As a general rule, the best works accessible to the generality of students have been selected. Smyth's Lectures, 1st and 2nd series, as being too expensive for each student to buy, were purchased two years back by the late Fourth Year's Students conjointly, and have since then been handed down from class to class.
1786—1815	TIMES OF THE FRENCH REVOLUTION: State of France before the Revolution; Constituent Assembly; Legislative Assembly; Convention; Political View of Europe; Directory; Consulate and Empire.	Smyth's Lectures, 2nd Series, III.—X. Selections from Lamartine's Girondists. § Mignet's History of the French Revolution.	

(c) JURISPRUDENCE.

185. In my last Report I proposed to give the Senior Scholars a Course of Lectures in "General Jurisprudence," using the term in its widest acceptation, as equivalent to the Science of Law. I shall here, however, have to observe the usual, though not very clearly defined, division of law into public and private; and, in reporting on the amount of work done during the year, to separate the department of public or political law, *Polity*, from *Jurisprudence*, or the Science of private rights and duties; as the mode of teaching was not the same in each branch, though both were studied simultaneously.

186. *Polity*, embracing the principles of constitutional and of administrative law, has been studied chiefly in its applications to the British Empire. Book VI. of Paley's Moral and Political Philosophy, chapters i.—ix. and Book V. of Mill's Political Economy, on the influence of *Government*, with the exception of some chapters of a purely economic character, were read for the principles of the subject; and for the details, the Cabinet Lawyer, Parts I. II. and VI., on the *Constitution of England, Administration of Justice, Crimes, and Punishment*. A short but elegant treatise, published by Pickering, entitled "Principles of Criminal Law," has also been read. In illustration of the principles of British legislation and law administration in India, Mr. Cameron's evidence taken before the Lords' Committee was read; also a Report published in 1848 by the Indian Commission "On a scheme of Pleading and Procedure adapted to the Penal Code"; and the sketch given in Morley's Digest of the Judicial system of the Bombay Presidency, being an analysis of the Regulations in that branch. Little more has been attempted in this department than to give the Student a general knowledge of the subject.

187. In the department of *Private Law*, the teaching has been more systematic. In the absence of anything like a convenient text-book, I had to arrange a series of Lectures, consisting of brief abstracts, with references for further reading, dictated in Class, and at intervals examined upon. In this Course of Lectures, on what may be called "General and Comparative Jurisprudence," my

object has been to endeavour to classify and expound those general leading principles which, as pointed out by Lord Bacon, may be discovered by induction to pervade the laws of all nations; and in this attempt I have availed myself extensively, more especially under the titles of *Contracts*, *Family Law*, and *Succession*, of the labours of those celebrated Anglo-Indian Judges whose researches, penetrating into regions previously unexplored by the Jurists of the West, have afforded materials for contemplating the growth and character of private law under a variety of conditions greater than could reasonably have been expected while the phenomena of the science continued to be observed merely as they were being, or as they had been, developed within the, by no means, comparatively speaking, diversified area of Europe.

188. The number of Students in this Class varied throughout the year. I commenced the subject about the middle of March with the Fourth Year's Students, four in number, to whom before the May vacation I gave thirteen Lectures, of which one was introductory, three on Classification, five on Property, and four on Contracts. By June the Class was reduced to two, who were then joined by seven Third Year's Students. But of these again three left before August; and another Fourth Year's Student, Vishwanath Narayan, in November, so that only five in all were present at the Annual Examination. To the joint Class I gave fifteen new Lectures, and revised the former thirteen, to which were added seven supplementary; making in all a course of thirty-five Lectures, viz. five Preliminary and Historical, five on Classification, five on Property, five on Contracts, six on Family Law, seven on Succession, and two on Secondary Rights.

189. The *Paper* questions proposed at the Examination, with which I forward two sets of answers, one by Narayan Bhai, the only Fourth Year's Student present, and the other by Pestanji Jehangirji, the best man of the Third Year, will give a very fair idea of the matters touched on in the first ten Lectures. The *vivâ voce* examination, commencing with Property, went through that and the remaining titles to the end of the Course.

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R. T. REID, L. L. B.

3. MATHEMATICS AND NATURAL PHILOSOPHY.

First Year's Students.

190. When this Class was given to me, about the end of June, it had already gone over the Theory of Logarithms and two Chapters of Young's Theory of Equations, in addition to a revision of Spherical Trigonometry. I carried it to the 10th Chapter of the Theory of Equations, (omitting the 8th and 9th,) and taught the Chapter on Dialling in Thomson's Trigonometry. The month of October was spent in revising the studies of the year.

191. Out of twenty Students, nine have obtained marks above 60, and two above 40, per cent. Ganesh Dhondeva has particularly distinguished himself, having received 95 per cent., while the Student immediately below him has but 75.

192. I continued the weekly Lessons on Experimental Physics to the First and Second Year's Students together. The study of the *Five Mechanical Powers* has been gone over.

Second Year's Students.

193. Professor Patton had already taught this Class the Elementary principles of the Differential Calculus, when it was given to Vishwanath Narayan about the end of June. With Vishwanath it carefully studied the application of the principles of the Differential Calculus, from Young's Treatise, as far as the Chapter on Involutes and Evolutes, and had just commenced the Integral, when Vishwanath left it, about the middle of October. I then went over the first principles of the Integral, and revised the Differential Calculus. In Experimental Physics this Class was joined with the First Year's Students. All of them seem to have paid considerable attention to their Mathematical Studies, the lowest having obtained 25 per cent. of marks, and only three out of twelve, below 40 per cent.

Third Year's Students.

194. I commenced teaching this Class in the beginning of August. They had then read two Sections of Young's Dynamics, and some important propositions from other works. Under me they studied three Chapters and a half of the third Section of Young, and revised the studies of the year.

195. All have obtained above 40 per cent., and Narayan Balal, the best, has gained 67 per cent. marks.

FOURTH YEAR'S STUDENTS.

196. From the middle of October, when Vishwanath Narayan left this Class, Narayan Bhai has been the only Student. The studies have been, from Lloyd's Optics, the Chapters on the Refraction of Light through Spherical Surfaces, and on the Formation of Images by Refraction; and, from Maddy's Astronomy, the first four Chapters. Narayan was not examined *vivâ voce*, but had a larger number of paper questions. He has obtained 76 per cent. of marks.

ENGINEERING CLASS.

197. This Class, in charge of Mr. Govind Gangadhar, consisted of eleven Students at its commencement, in April. Of these only four remained at the end of the year. They seem to have done very little. They have been exercised in line drawing, printing, and the use of instruments. One hour every alternate day is too little for a study in which much practice is essentially necessary: besides, as it seemed to be thought by the Students themselves that the time devoted to the subject would not enable them to study it to any useful purpose, they attended even these three hours a week with some reluctance.

198. Subjoined are tables of the results of the late Examinations, with the paper questions, and the answers of the best Student in each Class.

DADABHAI NAOROJI,
Acting Professor of Mathematics and Natural Philosophy.

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4. CHEMISTRY AND BOTANY.

199. Consequent on the alteration in the period of the Scholarship Examinations from April to December, the Classes in

Chemistry have continued the Courses this Session from the points where they were broken off at the conclusion of last year. The Lectures to the First and Third Year's Students have embraced the consideration of all the elementary substances, non-metallic and metallic, and their most remarkable compounds, concluding with a few Lectures introductory to the subject of Organic Chemistry. Those to the Second Year's Students have included the Metals and Organic Chemistry.

200. The Lectures on Botany were continued from January to the May recess, instruction being given in the characteristics of all the most important Natural Orders, and the special peculiarities of the principal plants, and the products belonging to each. In the discussion of the Natural Orders I did not confine myself to the taking them in any formal series, but selected, on each occasion, such as could be most conveniently illustrated at the time. The Students also went with me on several occasions to the Horticultural Gardens.

ROBERT HAINES, M.B.

APPENDIX A.

Tabular View of the Number, Age, Time at School, and Caste, of Pupils in each Class.

I. BRANCH SCHOOLS.

1st,—MUMBADEVI.

Class.	Division.		No. of Pupils.	Age.									Time in English School.			Caste.														
	Marathi.	Gujarati.		9	10	11	12	13	14	15	16	17	Maximum.	Minimum.	Average.	Brahman.	Shenvi.	Joshi.	Purbhu.	Vani.	Sonar.	Sutar.	Khatri.	Shimpi.	Lavana.	Bhansali.	Koli.	Parsi.	Khoja.	Beni-Israel.	Bandari.	Soma-Khatri.
													Years.	Years.	Years.																
I.	..	1	32	2	1	3	11	8	4	2	..	1	2	1	1	2	..	..	..	2	..	..	..	..	..	..	..	20	..	..	..	..
	1	..	23	1	1	2	9	6	2	2	..	..	1	1	1	3	1	1	0	..	5	4	2	2	..	..	..	..	1	..	..	..
II.	..	1	22	..	3	..	4	7	6	..	1	1	2	1	1	1	..	..	..	12	..	..	12	2	1	1	..	15	..	..	..	..
	1	..	19	..	1	5	6	6	1	..	..	..	1	1	1	1	5	1	7	..	2	..	..	..	..	..	1	..	..	..	1	1
III.	..	1	29	1	2	5	7	10	2	..	1	1	2	1	2	..	..	..	..	1	..	..	..	..	..	..	1	..	24	3	..	..	..
		Total	125													7	6	2	13	5	7	4	6	1	1	1	65	3	1	1	1

2nd,—FORT.

Class.	Division.	No. of Pupils.	Age.									Time in English School.			Caste.				
			8	9	10	11	12	13	14	15	16	Maximum.	Minimum.	Average.	Vani.	Parsi.	Moghal.	Jew.	Born.
												Years.	Years.	Years.					
II.	2nd....	45	2	2	11	10	13	4	1	2	..	1	¼	¾	..	43	1	..	1
	1st	33	1	3	8	3	5	5	4	4	..	1½	¼	1	..	32	..	..	1
III.....	2nd....	30	..	1	2	2	13	5	4	2	1	2¾	¾	1¾	1	29	..	..	..
	1st	30	..	..	10	12	1	4	2	1	..	3¼	½	2	..	29	..	1	..
	Total..	138													1	133	1	1	2

II. CENTRAL SCHOOL.

Class.	Division. Marathi.	Division. Gujarati.	No. of Pupils.	Age. 9	10	11	12	13	14	15	16	17	18	19	20	Time in English School. Maximum.	Minimum.	Average.	Caste. Brahman.	Parbhu.	Sonar.	Shenvi.	Kanadi.	Shimpi.	Agri.	Parsi.	Khatri.	Bandhari.	Pal-lia.	Sutar.	Vani.	Bora.	Lavana.	Khoja.	Guj-Brahmin.	Govekar.	Joshi.	Maratha.	Bhatia.	Musulman.	Portuguese.	Dhobi.	Vaishya.	Kayasth.	Kansar.	Kulmi.	Armenian.
																Years.	Years.	Years.																														
III.	2nd	..	31	..	..	3	7	11	2	6	2	..	..	..	..	3		2½	3	11	5	0	1	1	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1st	..	36	..	1	1	8	3	13	7	4	3	..	1	..	4		2½	3	11	2	8	..	1	..	..	4	..	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	3rd	41	..	1	2	7	14	7	4	4	1	1	..	..	3		2	..	..	..	..	..	..	..	37	..	..	..	2	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..
	..	2nd	43	1	3	9	11	11	5	3	..	..	..	..	..	3½	1	2½	..	..	..	..	..	..	..	36	2	..	..	2	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	1st	32	..	..	3	12	10	5	..	2	..	..	..	..	3½		2½	..	..	..	..	..	..	..	26	2	..	..	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
IV.	1st	..	31	..	..	..	1	5	5	1	5	5	3	3	..	5		2½	7	7	3	5	..	..	..	..	1	..	..	2	..	..	..	..	1	4	1	..	..	..	..	..	..	..	..	..
	..	3rd	38	..	..	2	13	4	8	0	1	1	3	..	..	4		2½	..	..	..	..	..	..	..	31	1	..	..	2	..	..	..	2	..	..	..	1	1	..	..	..	..	..	..	..
	..	2nd	41	..	..	..	5	7	11	4	2	10	1	1	..	4		3	..	..	..	..	..	..	..	33	1	..	..	2	1	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..
	..	1st	30	..	..	..	3	3	0	9	8	3	4	2	1	5		3½	..	..	1	..	..	..	..	33	..	..	..	3	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
V.	1st	..	36	..	..	..	..	..	..	14	15	3	4	..	..	7		4	..	17	3	10	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	1	1	..	..	..	..
	..	2nd	40	..	..	..	2	2	10	8	3	11	4	..	..	5½		3½	..	..	..	..	..	..	..	36	..	..	..	1	..	..	..	2	..	..	..	..	..	..	1	..	..	..	..	..
	..	1st	42	..	..	..	..	1	2	4	11	13	5	6	..	7		4	2	1	..	1	..	..	..	31	1	..	..	2	..	..	..	..	..	..	..	1	..	..	..	2	1	..	..	..
VI.	2		38	..	..	..	..	2	2	1	13	6	10	3	1	8½		5½	2	10	..	..	..	1	..	20	1	..	..	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
	1		33	..	..	..	..	1	..	1	2	8	12	5	4	9		5½	7	4	2	1	..	..	..	12	3	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..
	Total..		521																26	61	16	31	1	3	1	295	18	1	1	7	19	3	1	6	6	1	6	3	2	2	4	1	1	1	1	2	1

III. COLLEGE.

Tabular view of the Number, Age, and Caste of Students in each Class.

		No. of Students.	Age.									Caste.												
			13	15	16	17	18	19	20	21	22	24	Brahman.	Shenvi.	Parbhu.	Vani.	Sonar.	Savak.	Kansar.	Guj. Brahman.	Kshatrya.	Sutar.	Parsi.	Portuguese.	Bhatia.
Students admitted in January 1853 as	Claro Scholars	11	1	1	3	2	2	2	..	..	..	..	3	..	3	..	1	..	..	..	1	..	2	..	1
	Free Scholars	22	..	1	1	12	7	..	1	..	..	..	3	..	5	2	..	..	..	..	..	..	12	..	..
	Paying Students	13	..	1	1	3	4	3	..	1	..	..	..	1	5	1	..	..	..	1	..	..	4	1	..
First Year's Students		22	..	..	..	3	5	4	7	1	2	..	3	1	7	..	..	1	..	3	..	2	5	..	..
Second „ „		14	..	..	..	..	..	2	4	5	3	..	3	1	3	1	1	1	..	..	..	..	4	..	..
Third „ „		4	..	..	..	..	..	..	2	..	1	1	1	..	1	..	..	..	..	..	..	..	2	..	..
Fourth „ „		1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..
Total....		87											13	3	24	4	2	2	1	4	1	2	29	1	1

Comparative view of Castes.

	Hindus.	Parsis.	Musalmans.	Portuguese.
I. Branch Schools.....	57	198	8	..
II. Central School.....	210	295	12	4
III. College.....	57	29	..	1
Total....	324	522	20	5

Grand Total.... 871

APPENDIX B.

GENERAL PRIZE LIST.

I. Branch Schools.

1st,—Mumbadevi.

Class.	Division.	Name.	Prize in
I.	Mar..	Bhaskar Shivaram.....	English.
		Krishnaji Govind	Arithmetic.
	Guj...	Bamanji Limji	English.
		Bejanji Dadabhai	Arithmetic.
II.	Mar..	Mahadava Haritrimbak	English.
		Sundar Bhaskar.....	Marathi.
		Parasharam Narayan	Arithmetic.
	Guj...	Dorabji Hirjibhai	English and Gujarati.
		Valu Hemraj	Arithmetic.
III.	Guj...	Hormazji Dinshabhai	English.
		Rustamji Motablai	Gujarati.
		Bamanji Hirjibhai.....	Arithmetic.

2nd,—Fort.

Class.	Division.	Name.	Prize in
I.	.....	Hormazji Manekji.....	English.
		Kavazji Rustamji	Arithmetic.
		Pestanji Mancherji	Arithmetic.
II.	2nd...	Naorozji Jahanghir	English.
		Jamshedji Manekji	English.
	1st. ...	Temulji Dinshabhai	English.
		Dadabhai Pestanji.....	English and Gujarati.
		Bamanji Sorabji	Arithmetic.
III.	2nd...	Khurshedji Beramji	English.
		Khemchand Damarsi	English.
		Nasarvanji Barjodji	Gujarati.
		Mervanji Dhanjibhai	Arithmetic.
	1st. ...	Naorozji Kavazji	English.
		Mancherji Naorozji	English.
		Tyab-Ali Jafar-Ali.....	Arithmetic.
		Mancherji Nasarvanji	Arithmetic.

II. Central School.

Class.	Division.		Name.	Prize in
III.	Gujarati.	3rd	Dosabhai Framji	English.
			Ahmad Habib	Gujarati.
			Pestanji Dinsha	Arithmetic.
		2nd	Shivadas Harakchand	English and Gujarati.
			Framji Bamanji	English and Gujarati.
			Dorabji Hormazji	History.
			Pestanji Beramji	Arithmetic.
		1st	Vijabukhan Atmaram	English and Gujarati.
			Vandravan Lakmidas	English and Gujarati.
			Damodar Hargovind	Arithmetic.
	Marathi.	2nd	Ganpatrao Shricrishna	English, Marathi & History.
			Jagannath Atmaram	Arithmetic and History.
			Vinayaka Balaji	History.
		1st	Bhai Ramchandra	English.
			Mahadaji Vishnu	English, Marathi and Arithmetic.
			Damodar Raoji	Arithmetic.
IV.	Gujarati.	3rd	Nasarvanji Dhanjibhai	English and Gujarati.
			Kavazji Hormazji	English, Gujarati & History.
			Rustamji Khurshedji	Arithmetic.
			Hormazji Nasarvanji	Arithmetic.
		2nd	Kassim Kakhi	English and Gujarati.
			Dalpatram Pranjivan	English, Gujarati & History.
			Barjodji Kavazji	Arithmetic.
			Edalji Pestanji	Arithmetic.
		1st	Beramji Bhikaji	English.
			Kavazji Dhanjibhai	English and Gujarati.
			Mancherji Dinsha	History.
			Nasarvanji Dorabji	Arithmetic.
			Beramji Nasarvanji	Arithmetic.
	Marathi.		Bhaskar Hari	English and Marathi.
			Dhondu Ananta	English and Marathi.
			Keroba Damodar	Arithmetic.
			Mahadaji Vishnu	Arithmetic.
V.	Gujarati.	2nd	Jamnadas Hargovindas	English.
			Nanabhai Edalji	English, Gujarati & History.
			Karsandas Mahadevadas	Arithmetic.
			Dadabhai Kavazji	Arithmetic.
		1st	Murlidhar Girdhar	English and Gujarati.
			Tribhuvandas Dwarkadas	English, Gujarati and Arithmetic.
			Edalji Nasarvanji	History.
			Pestanji Naorozji	Arithmetic.
	Marathi.		Narayan Mahadeo	English and Marathi.
			Vinayaka Moroji	English.
			Purshotam Balaji	Arithmetic.

APPENDIX C.

GENERAL RESULTS OF ANNUAL SCHOLARSHIP EXAMINATION,

DECEMBER 1852.

1st.—Candidates for Clare (Junior) Scholarships.

Class.	Order of merit.	NAMES.	Language.		History and Geography.		Arithmetic and Mathematics.		Value.	
			Vernacular.	English.	Viva voce.	Paper.	Viva voce.	Paper.	Answers returned.	Full Answers.
		Value....	50	50	30	70	40	60		
Clare Scholars.	1	Shridhar Vithal	41	36	26	57	30	52	242	300
	2	Jagannath Narayan	40	38	18	59	16	57	228	
	3	Jahanghir Framji	37	34	30	46	28	52	227	
	4	Pandurang Hari	43	35	8	56	16	42	200	
	5	Muncherji Dorabji..	38	16	12	31	34	56	187	
	6	Bal Govind	42	43	12	30	15	40	182	
	7	Shivashankar Govindram ..	39	34	4	45	16	43	181	
	8	Ramdas Banji	39	39	22	38	18	25	181	
	9	Nanabhai Hari Trimbaka ..	34	24	14	30	16	53	180	
	10	Bhaskar Balcrishna	29	20	30	34	20	47	180	
	11	Shricrishna Narayan	43	40	10	34	20	33	180	
Free Students.	12	Pestanji Edalji	38	22	10	54	12	40	176	
	13	Dadabhai Rustamji	39	27	10	42	10	38	166	
	14	Dinkar Ramchandra	34	32	14	30	6	44	160	
	15	Framji Temulji	32	26	10	47	20	23	158	
	16	Kuvarji Barjodji	38	11	16	34	18	38	155	
	17	Gopal Govind..	43	38	10	35	1	25	154	
	18	Narayan Pandurang	42	16	4	10	29	52	153	
	19	Mahadavarao Bhaskar..	33	23	20	16	9	46	147	
	20	Barjodji Framji	42	18	0	41	6	37	144	
	21	Harkisan Goverdhandas	37	21	24	8	14	39	143	
	22	Keshavrao Bhaskar	34	13	10	20	14	50	141	
	23	Vishnu Raoji	40	23	10	30	8	29	140	
	24	Muncherji Beramji	33	18	16	33	10	28	138	
	25	Rustamji Munekji	34	20	0	30	8	48	135	
	26	Nanabhai Bhaskar..	31	25	4	18	16	30	133	
	27	Ambaram Kevalram	37	5	10	18	21	38	129	
	28	Jahanghir Jamshedji	25	4	14	50	7	28	128	
	29	Phirozsha Kavazji	36	17	18	38	0	23	127	
	30	Framji Beramji	37	16	14	20	16	24	127	
	31	Fakirji Pestanji	36	7	20	17	13	34	127	
	32	Mahadavarao Kanoba	31	28	14	16	6	28	126	
	33	Hormazji Dadabhai	36	20	14	10	12	20	121	

2nd.—First Year's Students.

Class.	Order of merit.	Names.	Subjects.						Value.	
			Literature.	History.	Political Economy and Logic.	Mathematics & Natural Philosophy.	Translation.	Chemistry.	Answers returned.	Full Answers.
		Value....	40	60	100	100	60	40		
West Scholars.	1	Ganesh Dhondeo	30	38	73	95	54	29	319	400
	2	Edalji Shapurji	37	43	68	59	53	32	292	
	3	Motilal Jivandas	38	48	61	64	53	19	283	
	4	Pandurang Balibadra	34	39	63	64	52	24	276	
	5	Parasharam Vishnu	30	32	63	63	54	9	251	
	6	Sonnarayan Nandnarayan.. ..	26	28	60	72	52	12	250	
Clare Scholars.	7	Harichand Antoba..	19	20	43	75	52	23	238	
	8	Nilkanth Mahadavarao..	25	35	53	61	41	17	232	
	9	Ganpatrao Bhaskarji	32	47	52	37	46	14	228	
	10	Moroba Sundarji	19	33	47	60	48	11	227	
	11	Dwarkanath Jagannath..	23	33	65	41	51	6	219	
	12	Parbhuram Navalram..	36	34	51	27	55	5	208	
	13	Sorabji Rustamji	16	25	53	60	43	8	205	
	14	Mahipatram Ruparam..	28	47	61	9	49	9	203	
	15	Darasha Dorabji	35	37	58	5	54	5	194	
	16	Ramcrishna Narayan	21	27	41	32	50	13	184	
	17	Dadabhai Mancherji	33	21	30	31	52	5	181	
	18	Kavazji Nushirvanji	30	27	58	4	41	11	171	
	19	Harichand Vithoba	8	23	30	28	40	24	105	
Paying Students.	20	Sakharam Govindji	15	20	40	12	47	10	150	
	21	Ragunath Ganpat	14	13	12	a	41	3	83	
	22	Nanabhai Pandurang	8	5	13	a	32	5	63	
	23	Vinayaka Krishna	5	5	4	a	32	1	47	
	24	Ganpatrao Moroji..	6	a	3	0	20	0	29	

3rd.—Second Year's Students.

Class.	Order of merit.	Names.	Subjects.						Value.	
			Literature.	History.	Political Economy.	Mathematics & Natural Philosophy.	Translation.	Chemistry.	Answers returned.	Full Answers.
		Value....	50	50	100	100	60	40		
West 2nd Normal Scholars.	1	Fardunji Jamshedji	39	44	74	80	50	19	306	400
	2	Balcrishna Sadashiva	38	43	70	71	48	21	291	
	3	Bhairanath Mangesh	41	42	62	56	42	22	265	
	4	Jahanghir Rustamji	20	33	63	63	40	20	248	
	5	Harishankar Balcrishna..	42	38	69	36	47	8	240	
West Scholars.	6	Kahandas Tapidas..	36	35	45	61	43	9	229	
	7	Telukchand Manekchand	34	35	61	41	38	14	223	
	8	Mahadji Vasudeva	38	31	43	46	46	11	215	
	9	Naorozji Beramji..	31	27	48	48	29	15	198	
	10	Ganpat Madanji	24	28	46	25	43	17	178	
	11	Mancherji Mervanji	11	11	35	57	38	16	168	
Not Qualified.	12	Govind Vishnu..	15	10	10	30	44	8	135	
	13	Ramchandra Ganpat	8	5	0	a	18	a	31	

4th.—Third Year's Students.

Class.	Order of merit.	Names.	Subjects.						Value.	
			Literature.	Jurisprudence.	Logic & Mental Philosophy.	Mathematics & Natural Philosophy.	Vernacular Essay.	Chemistry.	Answers returned.	Full Answers.
		Value....	40	60	100	100	60	40		
2d Normal.	1	Pestanji Jahanghirji	34	58	71	55	45	18	281	400
	2	Hormazji Edalji	29	51	70	43	33	21	247	
1st Normal.	3	Khanderao Moroba..	22	38	38	50	30	16	206	
	4	Narayan Balal..	13	35	24	67	30	10	179	

5th.—Fourth Year's Students.

Class.	Order of merit.	Names.	Subjects.						Value.	
			Literature.	Jurisprudence.	Ethics.	Mathematics & Natural Philosophy.	Vernacular Essay.	Chemistry.	Answers returned.	Full Answers.
		Value....	40	60	100	100	60	40		
1st Normal.	1	Narayan Bhai	30	51	69	76	36	32	295	400

APPENDIX D.

SCHOLARSHIP PAPERS, 1852.

CANDIDATES FOR CLARE (JUNIOR) SCHOLARSHIPS.

MATHEMATICS.

6th December.—From 2 to 5.

Acting Prof. DADABHAI NAOROJI.

1. How many men can complete a trench of 468 yards in 8 days, if 24 men can dig 81 yards in 6 days?

2. In what time will a sum of money double itself, at $3\frac{1}{2}$ per cent. per annum, compound interest?

3. The angles at the base of an isosceles triangle are equal to one another.

4. Draw a tangent to a circle from a given point without it.

5. If the square described upon one of the sides of a triangle be equal to the squares described upon the other two sides, the angle contained by these two sides is a right angle.

6. The homologous sides of two similar triangles are 3 and 12; what is the ratio of their areas?

7. It is required to pave a rectangular court with China tiles, a foot square each; the breadth of the court is 42 feet, and the diagonal is 64 feet; how many tiles would be required to pave it?

8. Harmonicals cut all straight lines that intersect them harmonically.

9. $\left.\begin{matrix} x + y = a \\ x^3 + y^3 = b \end{matrix}\right\}$ to find x and y.

10. Prove $\sin 67° 30' = \frac{1}{2}\sqrt{2+\sqrt{2}}$.

11. Prove the formula to determine the angles of a plane triangle when the sides are given.

History.

7th December.—From 2 to 5.

Prof. Reid.

1. Can you adduce any arguments in favor of the hypothesis that the occupation of the south of India by the "Iranian" Hindus was of comparatively modern date? What portions of Grecian and of Roman history respectively do the legends of the Solar and Lunar dynasties resemble?

2. Sources and extent of our knowledge regarding the Ancient Persians? Political and social aspect of the Persian Empire? Chief points of contact between the histories of India and Persia?

3. Give a brief account of the career of Alexander the Great; his character; and chief results of his conquests. Outline of the history of the Syrian and Bactrian States, and their connection with India?

4. Sketch of the Saracenic conquests in Asia and in Europe, from the coming of Mohammed to the establishment of the Mogul Empire in India, and to the fall of Constantinople?

5. Mention the situation of, and any historical facts that you know of connected with, the following localities:—

Actium, Cithaeron, Cyrenaica, Delphi, Miletus, Teutyris, Utica?

Translation.

8th December.—From 2 to 5.

Prof. Harkness.

(Into Marathi or Gujarati.)

The most durable monuments of human industry are public buildings. The productions of art, formed for the common purposes of

life, waste and perish in using them; but works destined for the benefit of posterity subsist through ages, and it is according to the manner in which these are executed that we form a judgment with respect to the degree of power, skill, and improvement to which the people by whom they were erected had attained. In every part of India monuments of high antiquity are found. These are of two kinds—such as were consecrated to the offices of religion, or fortresses, built for the security of the country. In the former of these, to which, whatever their structure may be, Europeans give the general name of *Pagodas*, we may observe a diversity of style, which both marks the gradual progress of architecture, and throws light on the general state of arts and manners in different periods. The most early Pagodas appear to have been nothing more than excavations in mountainous parts of the country, formed, probably, in imitation of the natural caverns to which the first inhabitants of the earth retired for safety during the night, and where they found shelter from the inclemency of the season. The most celebrated, and, as there is reason to believe, the most ancient, of all these, is that at Elephanta.

FIRST YEAR'S STUDENTS.

Political Economy.

13th December.—From 2 to 5.

Prof. Harkness.

1. What relation, if any, do general prices bear to the quantity of money in circulation?

2. Does the rate of interest bear any necessary relation to the quantity or value of the money in circulation?

3. State the reasons for permitting, and the reasons for prohibiting, the issue of paper money by more than one banking establishment.

4. State and explain the effects on international trade produced by casual or temporary variations in the value of money, unconnected with any causes affecting its permanent value.

5. "Many of the most important doctrines in political economy are to be learnt at the extreme margin of cultivation." Explain this, showing—

(a) The fact or facts to be observed.

(b) The inferences to be drawn therefrom.

6. In what sense, if any, of those words is it true, that "low wages" enable a country to sell cheaper in the foreign market?

History.

14th December.—From 2 to 5.

Prof. Reid.

1. Political view of the Southern European States System at the accession of the Emperor Maximilian I.?

2. Outlines of the contest between Charles V. and Francis I.; and consequences of the struggle to the European political system?

3. Sketch of the commerce and colonization of the Portuguese, from the age of "the Navigator," to the accession of Philip IV. of Spain?

4. Why, according to Guizot, did Cromwell's parliaments fail? Chief features of his continental policy?

5. General survey of the state of affairs in Germany, and in the rest of Europe, at the breaking out of the Thirty Years' War? Immediate cause of the war? Circumstances, internal and external, which contributed to its spread and duration?

6. Schiller's review of the career of Gustavus Adolphus? Chief points, according to Smyth, to be considered in estimating his character?

7. Political and social view of the Reformation, from 1517 to the Peace of Westphalia?

Chemistry and Geology.

15th December.—From 2 to 5.

Acting Prof. Haines.

1. With what forces are the *sun's rays* endued ? How may the compound nature of *light* be proved, analytically and synthetically ?

2. State the sources, physical properties, and chemical relations of *sulphur*, and mention the principal compounds it forms with oxygen.

3. Mention the composition and chemical properties of *ammonia ;* its chief uses in the arts and in nature. What are the immediate, and what the ultimate, sources from which it is derived ?

4. What is meant by the term *cleavage ?* Explain the difference between it and *stratification.*

5. Define the terms *anticlinal, synclinal, fault, dip,* and *strike.*

6. Into what principal groupes do geologists arrange the *stratified* and *unstratified rocks,* respectively ? Give examples of each.

Mathematics.

16th December.—From 2 to 5.

Acting Prof. Dadabhai Naoroji.

1. Prove

$$\log(n+1)=\log n+2\left\{\frac{1}{2n+1}+\frac{1}{3}\cdot\frac{1}{(2n+1)^3}+\frac{1}{5}\cdot\frac{1}{(2n+1)^5}+\&c.\right\};$$

$$e^x=1+x+\frac{x^2}{1\cdot2}+\frac{x^3}{1\cdot2\cdot3}+\frac{x^4}{1\cdot2\cdot3\cdot4}+\&c.$$

2. Prove the logarithmic formula for determining a side of a spherical triangle, when the angles are given.

3. Required the times of the rising and setting of the sun at Bombay, when his North declination is equal to the latitude (18° 58′) of the place. Prove the formula to be employed in this problem.

4. Show that every algebraical equation, of whatever degree, has a root of the form $a + b\sqrt{-1}$

5. Prove Descartes' rule of signs.

6. What is Budan's method for determining the character of roots in doubtful intervals?

7. Determine the character of the roots of the equation—

$$x^3 - 10x + 13 = 0$$

ELEMENTS OF LOGIC.

17th December.—From 2 to 5.

Prof. HARKNESS.

1. What is the proper office of Logic, regarded as an art? In what is there a striking analogy between Arithmetic and Logic?

2. What is an *univocal* and what an *equivocal* noun? What is meant by the first and second intention of a word?

3. What are *categorical* propositions, and into what two kinds are they divided? When is a proposition said to be *universal*, and when *particular?*

4. Define *syllogism*, and state the conditions which every valid syllogism must fulfil.

5. How many legitimate varieties must there be in the form of the syllogism? Of these how many are to be rejected as useless? Why must the moods I, O, O, and I, E, O, be rejected?

6. Describe, and illustrate by examples, the fallacy arising from the non-distribution of the middle term.

TRANSLATION.

18th December.—From 2 to 5.

(Into Marathi or Gujarati.)

The circumference of the plain is about two hundred miles, a little irregular, and surrounded by hills on all sides, so that no person can enter or come out of it without passing the mountains. There are three principal cities in the plain, each of which was the capital of an independent kingdom. The principal city of the three is situ-

ated to the Northwards of the plain, and is called Cat'hmandoo: it contains about eighteen thousand houses; and this kingdom, from South to North, extends to the distance of twelve or thirteen days' journey, as for as the borders of Tibet, and is almost as extensive from East to West. Besides these three principal cities, there are many other large and less considerable towns and fortresses: one of them is Tuni, and another Cipoli, each of which contains about eight thousand houses, and is very populous. All these towns, both great and small, are well built—the houses are constructed of brick, and are three or four stories high; their apartments are not lofty; they have doors and windows of wood well worked, and arranged with great regularity. The streets of all their towns are paved with brick or stone, with a regular declivity to carry off the water. In almost every street of the capital towns there are also good wells, made of stone, from which the water passes through several stone canals for the public benefit. In every town there are large square verandahs, well built, for the accommodation of travellers and the public. These verandahs are called Pali; and there are also many of them, as well as wells, in different parts of the country, for public use. There are also, on the outside of the great towns, small square reservoirs of water, faced with brick, with a good road to walk upon, and a large flight of steps, for the convenience of those who chose to bathe.

(Into English)

खोट्या बोलण्याचे कित्येक प्रकार आहेत; ते आवघे दुष्टपणाविषयीं अथवा अपायाविषयीं एकसारिखेच आहेत असें नाहीं, तथापि ते सर्व सदोष जाणून वर्जावे. प्रायः असें असतें कीं कांहीं वाईट अथवा आपल्या आई बापांस असंतोषकारक असें वाटाया सारिखें एखाद्या मुलानें केलें म्हणजे त्याचा त्याजवर आरोप आला असतां तो नाकबूल जातो. त्याचें कारण असें आहे कीं ठपका अथवा शिक्षा कशी चुकवावी यावाचून तो दुसरा कशाचा विचार करितनाहीं. तो जर विवेक करील, तर कांहीं थोडक्यें जोखीम होत असतांही सत्य बोलावें हें फार बरें, असें त्यास कळेल. कांतर एक लबाडी दुसरे लबाडीकडेस नेती, बहुत झाल्या म्हणजे सवई लागती

આણિ જ્યા કોણાસ લબાડીચી સવઈ લાગલી તો પુરુષ કેવળ અતિદ્વેષ્ય હોતો. મગ તો બોલતો ત્યાંતલા એક શબ્દ કોણી ખરા માનીત નાહીં.

Or,

જુહું બોલવું ઘણા પ્રકારનું છે; તે સઘલાં એકજ સરખાં દુષ્ટ તથા અપકારક નથી, તો પણ તે સઘલાંનો ધિક્કાર કરીને ત્યાગ કરવો. પ્રાયઃ જ્યારે કોઈ નાંહાના છોકરાએ કાંઈ અયોગ્ય કીધું હોય, અથવા તે એવું ધારતો હોય, કે મેં જે કીધું છે તેથી મારાં માબાપ નાખુશ થશે, માટે જ્યારે તેને માથે એ વાતનો કોઈ દોષ મુકેછે તારે તે નાસુકર જાયછે. એવું કરવાનું કારણ તો એજ કે તે ઠપકાથી અને શિક્ષા થકી બચી જાય. પણ જો તે વિચાર કરશે, તો થોડું ઘણું નુકસાન થાય, તો પણ સાચું બોલવું એ ઉત્તમ છે, તે તેને માલમ પડી આવશે;—કેમકે એકવાર જુહું બોલ્યાથી ફરીને બોલાયછે—ઘણીવાર જુહું બોલ્યાથી ટેવ પડી જાયછે—અને જુહું બોલવાની ટેવથી, જુહું બોલનારનો સર્વ લોક ધિક્કાર કરેછે, અને પછી તેના એક શબ્દ ઉપર પણ તેઓ વિશ્વાસ રાખતા નથી.

SECOND YEAR'S STUDENTS.

TRANSLATION.

6th December.—From 11 *to* 2.

(Into Marathi or Gujarati.)

Some (histories) are to be read, some are to be studied, and some may be neglected, not only without detriment, but with advantage. Some are the proper objects of one man's curiosity, some of another's, and some of all men's; but all history is not an object of curiosity for any man. He who improperly, wantonly, and absurdly makes it so, indulges a sort of canine appetite; the curiosity of the one, like the hunger of the other, devours, ravenously and without distinction, whatever falls in its way; but neither of them digests. They heap crudity upon crudity, and nourish and improve nothing

but their distemper. Some such characters I have known, though it is not the most common extreme into which men are apt to fall. One of them I knew in this country. He joined to a more than athletic strength of body a prodigious memory, and to both a prodigious industry. He had read almost constantly twelve or fourteen hours a day for five-and-twenty or thirty years, and had heaped together as much learning as could be crowded into a head. In the course of my acquaintance with him, I consulted him once or twice, not oftener; for I found this mass of learning of as little use to me as to the owner. The man was communicative enough; but nothing was distinct in his mind. How could it be otherwise? he had never spared time to think; all was employed in reading.

He who reads with discernment and choice will acquire less learning, but more knowledge; and as this knowledge is collected with design, and cultivated with art and method, it will be at all times of immediate and ready use to himself and others.

(*Into English.*)

संकोचवृत्ति.

जो कोणी आपली आपण स्तुति करितो, अथवा आपणास वाखाणितो, अथवा मी आपल्या मतें थोर आहें असें कोणाएका प्रकारें दाखवितो, त्यास निश्चयें करून हांसतात. आपण आपल्याविषयीं नम्रभाव वागवावा, आणि नम्रभाव वागवितों असें दाखवावें, आणि आपली स्तुति इतर करूलागले असतां ही त्यांचा तो स्तुतिवाद नम्रतेनें ग्रहण करावा. सर्व चांगलें गुण संकोचित वृत्तीनें शोभतात आणि सुधारतात, असें जें मानिलें आहे, तें नीट आहे. बढाईखोर वृत्तीनें जर आपले गुण दाखविले तर ते अत्यंत चांगले असतांही त्यांचा तिरस्कार होतो. मग ज्ञान, योग्यता, अथवा पदवी, आपल्याजवळ नसतां त्यांविषयीं आपण डौल घातला तर आपला फारच उपहास होतो. अशा डौलाची सहज उघडीक होती, आणि त्या डौल घालणाऱ्याच्याठायीं अगदीं ते गुण नाहींत, असें मानल्यानें जो त्याचा अनादर व्हायाचा त्याजपेक्षां त्याचा सर्वांकडून अधिक अनादर होतो.

Or,

મર્યાદશીલતા.

જે પુરૂષ પોતાને મોહોડે પોતાની સ્તુતિ કરેછે, અથવા પોતાની

બડાઈ કરેછે, અથવા કોઈ પણ રીતે એમ દેખાડેછે કે હું મારા મનથી મોટો છું, તે પુરૂષની મુકરર હાસી થાયછે. આપણે આપણાવિશે મનમાં નમ્રભાવ રાખવો અને નમ્ર ભાવ રાખીએ છીએ એમ દેખાડવું જોઈએ; અને બિજાઓ આપણી સ્તુતિ કરે તારે પણ તેનો આપણે નમ્રતાથી સ્વિકાર કરવો. સર્વ સારા ગુણો મર્યાદશીલતાથી શોભા પામેછે, તથા સુધરેછે; એવું જે માનવું તે યોગ્યજ છે. પરંતુ કદી ઉત્તમમાં ઉત્તમ ગુણો હોય, અને જો તે ગર્વથી દેખાડ્યા, તો તેઓ પણ હલકા ગણાયછે. જે જ્ઞાન, યોગ્યતા, અથવા પદવી, આપણને ન હોય, અને છે એવો જો ઢોંગ કરીએ, તો ઉપર કહ્યા કરતાં પણ આપણી વધારે હાસી થશે. એવા ઢોંગ સહજ ઉઘાડા પડેછે, અને તે ઢોંગીમાં તે ગુણો મુદ્દલ ન હોય, તેથી જેટલો તેનો ધિક્કાર થાય, તે કરતાં એવું કપટથી સર્વે કોઈ તેનો વત્તો ધિક્કાર કરે છે.

Political Economy.

7th December.—From 11 *to* 2.

Prof. Harkness.

1. State and illustrate the distinction between productive and unproductive consumption.

2. State and explain the distinction between wages and the cost of labour, and show by which of these the profits of the capitalist are determined.

3. Does profit make a part of the cost of production under any, and if any, what circumstances?

4. State the connection, if any, between the price of food and the rate of money wages.

5. Define rent.

6. Is the rent of land in this country regulated by competition? If not, how is it determined?

7. Mention some of the principal advantages, economical and moral, of foreign trade.

8. On what circumstances does the cost to a country of its imports depend?

Chemistry and Geology.

8th December.—From 11 *to* 2.

Acting Prof. Haines.

1. Describe the construction of a simple form of voltaic battery; the direction of the current it excites, the effect of the size and number of the plates upon its action, and the mode of measuring its activity. Mention some of the most advantageous modifications of the battery.

2. Describe the mode of preparing soap. Explain the chemical changes that occur in the process.

3. What do you understand by the terms stratified and unstratified rocks? Give examples.

4. How are strata most easily and constantly identified? What are fossils, and in what kind of rocks are they found? What kind of remains of organized beings are most abundant and most important?

5. Give some account of tertiary formations generally. How are they subdivided, and for what reason?

History.

9th December.—From 1 *to* 2.

Prof. Reid.

1. Public treaties of peace during the reign of Louis XIV.; their conditions, mutual connexion, and influences on the political system of Europe?

2. Character and maxims of Colbert's colonial policy?

3. "The situation which Pitt occupied at the close of the reign of George II. was the most enviable ever occupied by any public man in English History."—*Macaulay?*

4. Distinctive character and peculiarities of the age of Frederic the Great? Influences of the spread of civilization on politics and on society? Education and private life of Frederic?

5. Terms of the Treaty of Versailles: *(a)* between England and America; *(b)* between England and France?

6. Political state of Europe at the breaking out of the French Revolution of 1789?

7. Brief *résumé* of the chief results of the Revolution, from the opening of the States General to the death of Mirabeau? Leading characteristic of the Constitution of 1791?

8. Mignet's estimate of the Gironde party?

9. Sketch of the New Constitution decreed by the Convention in 1795? Social and political aspect of the Republic at the installation of the Directory?

MATHEMATICS.

10th December.—From 11 *to* 2.

Acting Prof. DADABHAI NAOROJI.

1. Differentiate

$$Y = \log \frac{\sqrt{ax + bx^2} + x\sqrt{b}}{\sqrt{ax + bx^2} - x\sqrt{b}}$$

$$Y = \tan^{-1}\left(\frac{3x - x^3}{1 - 3x^2}\right)$$

2. Prove $\pi = 3{\cdot}1415926$.

3. What is the value of $Y = \frac{1 + \cos 2\pi x}{e^{2x} - 2ex}$ when $x = \frac{1}{2}$

4. Prove the rule for determining the value of a vanishing fraction.

5. Determine those conjugate diameters of an ellipse which include the greatest angle.

6. Given the lengths of a degree of the meridian at two known latitudes, determine the ratio of the equatorial and polar diameters of the earth.

7. Determine the radius of curvature at any proposed point of a given curve.

8. Integrate

$$dy = \frac{x^3\,dx}{(a + bx^2)^2}$$

$$dy = \frac{\frac{1}{2}\,adx - xdx}{\sqrt{ax - x^2}} - \frac{\frac{1}{2}\,adx}{\sqrt{ax - x^2}}$$

9. I am able to sustain a ton weight by means of a handle 4 feet long applied to a screw, with the same exertion with which I

lift up 10 lbs. freely; what must be the distance between the threads of the screw?

ENGLISH LITERATURE.

(*Chambers' Cyclopædia.*)

11*th December.—From* 11 *to* 2.

Prof. REID.

1. Give the substance of Dr. Johnson's parallel between Dryden and Pope; with any general remarks that may occur to yourself on the subject.

2. Two distinct species of lyric poetry were cultivated among the Greeks. Mention some of the odes of Gray and Collins which belong to that species now seldom written.

3. What kind of poetry has generally been found to exercise the greatest influence on the masses of a people?

4. Peculiar character of the periodical literature which originated in the age of Pope?

5. Periodicals edited by Steele and Addison; their chief contributors?

6. Beneficial influence of those publications on the morality, manners, and intelligence of the English people?

7. Character of periodical writing during the interval from the *Guardian* to the *Rambler?*

8. Contrast Johnson and Goldsmith as miscellaneous writers.

9. Chief requisities of a periodical literature; its beneficial results?

THIRD YEAR'S STUDENTS.

VERNACULAR ESSAY.

13*th December.—From* 11 *to* 2.

Theme.

The nature and effects of Habit, and the importance of acquiring in youth habits of industry and virtue.

Logic.

14th December.—From 11 *to* 2.

Prof. Harkness.

1. Analyse the process by which general truths are arrived at.

2. State the different opinions maintained by Mill and Dr. Whewell as to the extent of meaning to be given to the term Induction.

3. In what way does the mode of induction which is frequently employed in pure Mathematics differ from the inductive method as used in Physics?

4. In every inference from experience, what principle or axiom is assumed?

5. What is meant by the expression "Laws of Nature"? Is the rise of the mercury in the Torricellian tube a law of nature?

6. Describe and illustrate Mill's four methods of experimental inquiry.

7. State briefly the successive steps of the investigation which led to the formation of "Wells' Theory of Dew"; and show of which of these methods each step is an application.

Chemistry and Geology.

15th December.—From 2 *to* 5.

Acting Prof. Haines.

The same as the First Year's Students.

Jurisprudence.

16th December.—From 11 *to* 2.

Prof. Reid.

1. Explain what is meant by each of the following terms in connection with the word Law:—Coercive, International, National,

Public, Private, Civil, Criminal, Customary, Statutory. Jurisprudence,—particular, or general. Jurisprudence and Legislation how far connected?

2. To what causes chiefly is the failure of those Jurists who have attempted to discover a *lex naturæ* to be attributed? Who first pointed out the correct method of investigation? State briefly to what extent each of the following writers has contributed to improve the cultivation of Law as a science:—Grotius, Montesquieu, Pothier, Locke, Hale, Blackstone, Bentham, Hugo, and Savigny.

3. Extent and character of the influence of Roman Law on the legal systems of Modern Europe? What branches of Law were chiefly cultivated among the Greeks, and why?

4. What contributions to the study of General and Comparative Jurisprudence have emanated from Anglo-Indian sources?

5. There are many curious coincidences in historical development between the Philosophy of Law and the Philosophy of Language?

6. Coercive Law, according to Reddie, may be viewed either as a branch of Ethics, or as a distinct science? Difficulties of the first method? General fundamental principles of Coercive Law?

7. Nature of the distinction between "Law of Things" and "Law of Persons"? Austin's classes of *personal?* How many of them belong to Jurisprudence,—using the term in its limited acceptation?

8. Two-fold classification of *Rights?* Why, according to Savigny, have family rights been sometimes erroneously identified with those to obligations, or else co-ordinated with them in contrast to rights of property?

Mechanics.

17th December.—From 11 *to* 2.

Acting Prof. Dadabhai Naoroji.

1. A particle placed anywhere within a spherical shell remains at rest.

2. The centrifugal force at the Equator is

$$F = \frac{G}{289}$$

3. Find the law of force at the focus of an elliptic orbit.

4. Determine the length of the lunar month.

5. Find the ellipticity of the earth by means of seconds' pendulums.

6. Given the length of the seconds' pendulum to be 39·0234 inches at Madras (Lat. 13° 4′ 9″); find the force of gravity at Bombay (Lat. 18° 58′).

7. Determine the centre of oscillation of a slender rod suspended at any point; and show that this centre and the point of suspension are convertible.

Mental Philosophy.

18th December.—From 11 *to* 2.

Prof. Harkness.

1. To what extent is the reformation in our principles of physical inquiry referable to improvements in mental philosophy?

2. Explain the philosophical sense of *subject* and *object*, *subjective* and *objective*: give examples of the use of these terms, and show what advantages follow from their adoption.

3. Distinguish between *representative* and *intuitive* knowledge.

4. Point out the difference between *realism* and *idealism*, as regards the fundamental principles assumed, and the method of reasoning adopted by either.

5. Enumerate the usually received *primary* and *secondary qualities* of the objects of perception, and give the distribution and nomenclature of those qualities proposed by Sir W. Hamilton.

6. Explain the influence of *habit*—(*a*) in increasing the tendency to certain actions; (*b*) in rendering the performance of those actions easier.

7. Explain the matter in dispute between the *Realists* and *Nominalists*.

FOURTH YEAR'S STUDENTS.

Ethics.

9th December.—From 11 *to* 2.

Prof. Harkness.

1. State and illustrate the distinction between *probable* and *demonstrative* evidence.

2. What is the final cause of the principle of *Benevolence*, as distinguished from the principle of *Self-love*.

3. State the difference between *Emulation* and *Envy*, as regards the means employed by each for the attainment of its end.

4. *Final cause* does not always imply that the end designed is answered?

5. When are natural *evils* natural *punishments?*

6. Show, from the peculiar correspondence between the internal constitution of man and the external conditions and circumstances of life, that the several passions and affections of the heart, compared with those circumstances, are real instances of final causes.

Astronomy.

10th December.—From 11 *to* 2.

Acting Prof. Dadabhai Naoroji.

1. If in a plano-convex lens, f denote the distance of the image when the curved surface is turned towards the luminous point, and f' the distance of the image when the ray is incident on the plane, surface, prove that $f - f' = \frac{\delta}{n}$, δ being the thickness of the lens.

2. Describe the construction and use of the *camera obscura*.

3. Prove the formula for correcting the place of the meridian, found by the shadow of a vertical gnomon on a horizontal plane, for the sun's change of declination.

4. Find the latitude and hour angle from two altitudes of the sun, and the time between.

5. Show that the distance of a point on the surface of the earth from its centre is equal to $a - c \sin^2 l$ nearly.

6. Describe the construction, adjustment, and use of the transit instrument.

7. Prove that the shadow of the earth is nearly $3\frac{1}{2}$ times the moon's distance in length, and that the breadth of the shadow where the moon crosses it is nearly $\frac{5}{7}$ of the moon's diameter.

8. What observations of the moon's parallax prove the spheroidal form of the earth?

9. Explain Refraction, Parallax, and Aberration, and describe some of their principal effects.

10. What is the cause of the sun's remaining longer on the North side of the Equator than on the South, by a little less than eight days?

11. How do you detect the retrograde motion of the equator on the ecliptic? whence does it arise, and what are its effects?

In other subjects along with the Third Year's Students.

APPENDIX E.

SELECTED ANSWERS.*

Political Economy.

First Year's Students.

1. An increase of money to the quantity already in circulation causes a rise of general prices ; and a diminution, a fall of general prices. If the quantity in circulation is doubled, general prices will be doubled also ; if it is increased one-fourth, general prices will rise one-fourth. Every increase causes a proportional rise in general prices. Suppose a foreigner to arrive in the country with a certain amount of money. If he establishes a manufactory, then he will lay out his money in paying wages to the labourers, and in buying tools and materials. An increased demand for labourers takes place ; consequently wages will rise, and the labourers, receiving more money, will lay it out in buying more of what they bought before, or in buying those articles which before was beyond their means. This increased demand for the articles will raise their prices, and the sellers of those articles, receiving more money, will also cause a rise of prices in the articles they will buy ; and so on, there will be a general rise of prices. If the foreigner, instead of establishing a manufactory, had expended the money in giving entertainments and feasts, he would have raised the prices of the articles he thus consumed ; and after a time the rise would become general. The same effects would follow if the goods were diminished instead of the money increased, and contrary effects if the goods were increased, and the money diminished.

Edalji Shapurji.

* These answers have not all been selected on the same principle. In some classes the entire paper of one or two Students is given ; in others not more than one answer is taken from any paper. The Professors do not hold themselves responsible for their contents.—J. H.

2. The rate of interest has no relation at all to the quantity or value of money in circulation, except in so far as that quantity adds to or diminishes the fund in the loan market. The rate of interest depends upon the habitual demand and the state of the loan market. What has tended to create misapprehension on this subject, is the circumstance that when an increase is made to the quantity of money in circulation, for example, by the issue of bank notes, the rate of interest is lowered. But the fact is, that by this issue of bank notes (by this increase of credit) an addition is made to the fund which is seeking investment; and the equation of demand and supply being disturbed by this increase in the quantity of supply, the rate has fallen.

MOTILAL JIVANDAS.

3. If the issue of paper money is only to be allowed under such restrictions as are imposed upon the Bank of England, there is no reason why private persons should be allowed to be benefited by the advantages accruing from the issue of paper money (to the issuers), rather than the public; but if banking institutions are to be left free in the management of their issue, then Government, which has already too much to do, should not be burdened with the intricate management of a bank of issue. If the paper be issued by joint stock banks, and the bankers be made to publish their accounts, as they are now made to do, there is no danger of their becoming bankrupt through mismanagement or dishonesty; and if they do, the public will not be the losers, but the shareholders. But the better plan is, that only one bank should be allowed to issue paper payable in specie on demand, while the other banks should be allowed to issue paper money; but when their notes are presented for payment, they should pay, not in coin, but in the notes of the central bank. This central bank should be made to lend a certain amount of its notes to the Government without interest. The central bank should also be made to keep as much coin in reserve as will suffice to meet any demand made on it by the holders of its paper. The reason why this plan is better than the former is, that if all the banks are to keep reserve of coin, a great quantity of money will be lying idle. If only the central one is to keep reserve, the rest of the money can be exported to purchase foreign commodities, and thus make a large addition to the

wealth of the country. Besides, it is more safe that only one should be rendered responsible. It has often happened that banks, in times when interest is high, lend their reserve ; so that when money is demanded by the holders of their notes, as is the case in certain states of commerce, they fail. The failing of one or two involves many others. Thus many traders, merchants, and the public in general is ruined. While the one central bank, knowing its responsibility, and that no one except itself has got money in coin, *will be obliged* to keep a sufficient reserve.

MAHIPATRAM RUPRAM.

4. If we suppose two countries, A and B, which trade [with] one another; A imports from B those commodities in which she is under the least advantage, and exports those in the production of which she has the greatest advantage. B also does the same with A ; that is, it imports those commodities in the production of which she is at a disadvantage, and exports those in the production of which she is in favourable circumstances. We will suppose the trade between them to be in a quiescent condition. Now if the quantity of money in A be supposed to be increased, in whatever manner, the value of money will fall, which is the same as saying that the prices have risen. These high prices will give stimulus to importation, and will check the exportation to a certain extent. Her imports will exceed her exports; a balance will be due from the importing country to the country which exports. She must pay the balance either by actually sending the money, or by means of bills of exchange : she will prefer paying it by means of bills of exchange. But the country having more to pay than to receive, the persons who have exported, finding that they are asked for more bills than they have to give, demand a premium, and the bills will be at a premium. This premium cannot exceed the amount which must be incurred if those who have to pay were to pay it by actually sending the money. If it exceeds that amount, the persons who owe the balance will send the money to the receiving country rather than go and ask for bills. In the same manner, if we suppose the quantity to be diminished, different consequences will follow. In this case there will be less money to be expended in the purchase of commodities, and the prices of those commodities will fall. In this

case the exports will exceed the imports, and [the country] will have more to receive than to pay. The bills will be at a discount, because, in the former case, the competition was on the side of the buyers, and that raised the rate of premium; but it is now on the side of sellers, who, in order to convert their bills into money, must give their bills at a discount; that is, they must give a bill worth one hundred pounds for something less than that sum. The bills, therefore, will be at a discount. I have supposed here only two countries; but if we introduce more than two countries, the process will still be the same.

NILKANT MADHAORAO.

5. The extreme margin of cultivation is the land of the worst quality, which in a state of society [it] has become advantageous to cultivate, and which therefore pays no rent. As the margin of cultivation descends to more and more inferior lands, rent increases: this increase of rent presupposes a rise of price of agricultural produce. Now wages depend on the price of food: therefore when the price of food is high, wages are high; and when the wages are high, a small portion remains for profits. Thus the margin of cultivation is an index to the proportions in which rent, wages, and profits enter the produce of a country.

GANESH DHONDEO.

6. General low wages do not enable a country to undersell her rival in the foreign markets. Suppose that wages in England are higher than the wages in Germany, but at the same time the profits in England lower than the profits in Germany. Now if Germany sell her commodities in the foreign country (suppose France) by taking the English profits, England can be undersold in France. But the German merchants will not be content with the English profits, and therefore England cannot be undersold. But if wages in Germany, for the production of the commodities exported to France, be lower, not than those of England, but than the wages in the production of other commodities in Germany, she will be able to undersell England in France, because her merchants, by offering their commodities at [a] cheaper rate than England, will yet, owing to the lower wages, derive the German rate of profit.

SOMNARAYEN NARNARAYEN.

Second Year's Students.

1. Consumption is said to be productive where the quantity of commodities consumed, or its equivalent, is reproduced by that consumption, with an additional profit on the original amount; and it is said to be unproductive when nothing is reproduced as an equivalent to the amount consumed—when the amount consumed is so much a loss to the aggregate wealth of the nation. This distinction can be better exemplified by the following illustration. Suppose there be a certain quantity of capital with a person named A, and he employs it in the production of corn. Now he will employ a part of his capital in defraying the wages of the labourers; a part will be expended in purchasing the tools and implements of husbandry—a part in manuring the land—a part in paying the rent to the landlord—a part in buying the seeds, &c. Now if by a judicious management of his occupation he produce as much corn as would repay him his whole amount of capital consumed, with an ordinary rate of profit, then it is that the consumption of his capital is said to be "productive." But if, instead of employing his capital in the production of corn, he chooses to spend [it] in giving entertainments to his friends, in wasting it in unnecessary expenses, such as giving balls, nautches, &c., in short, not spending in any of the ways by which it can assist production of any material wealth of the country, such a consumption of the capital is said to be "unproductive." In a word, capital is productively consumed when it assists production of any commodity in any of its shapes, either directly or indirectly, and consequently increases the aggregate of the material wealth of the community; but when it has not that effect, when it is a mere waste of a part of the existing capital of the country, then it is, strictly speaking, unproductively consumed.

JEHANGIR RUSTOMJI.

2. The wages of a labourer is the remuneration which he gets for his labour, and on this wages depend the amount of the necessaries and luxuries which he obtains. Cost of labour is the amount of money which a capitalist is obliged to pay for the labour; that is, what it costs to the capitalist or farmer. On cost of labour does

not depend the real necessaries of the labourers. The money wages may be high ; and if the price of food is very dear, then the real remuneration, or the wages, of a labourer are low ; consequently it is possible that the wages may be low when the cost of labour is very high. Although both these expressions mean the same thing, still the one (wages) is obtained by looking from the labourer's side; while cost of labour is the result of looking from the farmer's or capitalist's side. It is by the cost of labour that the profit of the capitalist is determined. Wages merely show the remuneration which a labourer obtains by the money which he gets from the capitalist or farmer ; while cost of labour is the amount of money or produce, subtracted from the gross produce, to be given to the labourers ; consequently, if the cost of labour is low, that is, when less is subtracted from the gross produce, then more remains for the profit.

TALAKCHAND MANEKCHAND.

3. Profit enters into the cost of production in one respect. Suppose a manufacturer opens a factory to produce woollen cloth. Now the expenses which he will incur for the production of the cloth are the cost of production of the cloth to him ; but in its preparation he will be obliged to purchase different kinds of raw materials, such as iron tools, wool, and many others. The price that the manufacturer pays to the tool-maker and the wool-shearer does not wholly form the expenses that they incurred in preparing their tools, &c., but a part of it goes to form their profit. They will not part with their products without a profit corresponding to their outlay. In this manner we may go back to a great length. The successive profits, with the proportional expenses, form the ultimate cost of production of the woollen cloth.

BALKRISHNA SADASHIV.

5. Rent is the consideration paid for the use of a natural agent, such as land, mines, fisheries, &c. When we occupy a house for our habitation, or for the establishment of a manufactory, we pay a certain rent. This rent may be higher or lower, according to the situation of the building. The rent which a farm yields to its owner is the excess of its produce above the worst land in cultivation. Thus, when there are lands of different degrees of fertility, say two,

of which one produces 80 bushels, and the other 60, with the same capital and outlay; then, since the cost of production of the corn grown on the inferior soil regulates the value of the produce, the superior land, which yields 80 bushels, gains an extra profit of 20 bushels, which are transferred by competition to the landlord.

NOWROJI BEIRAMJI.

7. One of the principal advantages of an international trade is a more efficient employment of the productive forces of the world. When two countries, as England and Sweden, attempt to produce respectively iron and cloth, the efficiency in production is greatly increased, for England possesses superiority over Sweden in the production of cloth, and on the other hand Sweden has comparatively the advantage over England in point of iron. If they try to have both these commodities on their own lands, their productive powers could not be developed to such an extent. International trade directs the energies of men to the production of those commodities which they can produce with the greatest advantage. It also tends to the extension of her market, for the production of the commodities to be supplied to the foreigners. Division of labour is extensively carried on, and inventions are made in the mechanical arts. As the foreign goods are to be obtained cheaply when our efficiency is comparatively greater, manufacturers become industrious, and zealous to effect any improvement possible in their own trade. By giving our produce in exchange when our labour is more efficient, we get their commodities cheapest, otherwise we are obliged to submit to a great disadvantage to produce the same.

Such are the economical advantages of foreign commerce. By trading with the foreigners, we improve in our manners and customs; and if our country is barbarous, elements of civilization are introduced into it by holding commerce with inhabitants. At all ages generally commercial nations are said to have civilized the semi-barbarous nations. Did not the Romans cultivate intelligence in Britain? Inventions and discoveries are gradually diffused over our country. Such are some of the moral advantages of foreign trade.

BHAIROANATH MANGESH.

Logic.

First Year's Students.

3. *Categorical* propositions simply assert that the predicate either does or does not apply to the subject. The two kinds of categorical propositions are *universal* and *particular*. A proposition is said to be universal when the predicate is said of the whole of the subject; in other words, when the subject is distributed, as, all men are mortal; here the predicate *mortal* is said of the whole of the subject, *men;* consequently it is an universal proposition. A proposition is said to be particular when the predicate is said of only a part of the subject; in other words, when the subject is undistributed. For example, some men are virtuous. Here the predicate *virtuous* is said of only a part of the subject, *men*. It does not apply to the whole of the subject.

Edalji Shapurji.

4. An argument in which both the premises are stated at full length, and in such a manner that its conclusiveness is manifest from the mere form of the expression, is called a syllogism. The conditions are as follows :—

1*st*. That in a syllogism there should be three, and only three terms.

2*nd*. That there should be three, and only three propositions.

3*rd*. That the middle term must be distributed in one at least of the premises.

4*th*. That this middle term must not be equivocal.

5*th*. One of the premises at least must be affirmative; for if both were negative, no conclusion could be drawn.

6*th*. That there should not be an illicit process.

These are the conditions which a syllogism must fulfil.

Nilkant Madhaorao.

6. Suppose we say every x is y, and again z is y, therefore x is z; this conclusion will be wrong, because we have compared x and z with a part of y, and we do not know whether it is the same part, so that we are not authorised to affirm x of y. This also does not

comply with the 1st canon, that two things, which agree with a common third in some respects, agree with each other in the same respects. Here we do not know whether they agree with a common third. To take a concrete example: every criminal is deserving of punishment, Caius is deserving of punishment, therefore he is a criminal. In this case, deserving of punishment is undistributed in both the premises, so that we cannot assert the conclusion as resulting from the premises.

Another example is, that every wise ruler endeavours to civilise the people: Alfred endeavoured to civilise the people, therefore he was a wise ruler. Now in this example the middle term, "civilise the people," is not distributed in any of the premises, so that this syllogism is condemned on the same ground as before.

MOROBA SUNDERJEE.

Third Year's Students.

1. General truths, as well as particular facts, are arrived at by induction. Deduction is possible only in and through induction. Induction is the universal type of all reasoning. But from the fact that all inductions may be thrown into the form of a syllogism, by supplying the major premise, Whately contends that ratiocination is the universal type of reasoning. But Mill refutes him by taking the Archbishop's own example, which is as follows:—The inductive inference, that because A, B, &c. are mortal, all mankind are mortal, can be thrown into the form of a syllogism by supplying the major premise, that whatever is true of A, B, &c. is true of all mankind. Thus reasons Archbishop Whately. But, as Mill says, he does not put to himself the question how we get the major premise. If this be by induction, it is still, according to Whately, by ratiocination. It is therefore required to construct that major premise. There is only one possible construction, viz. that a contrary supposition would be inconsistent with the uniformity of order in nature. Having reached this point, all may be thrown into the form of a syllogism save one, which, however, includes all. How do we know that nature is governed by general laws? Here, then, is a case of induction, which cannot be further resolved into any syllogism. Induction, then, whether in science or practical life, is the main type. But there are some cases in which the principles

of induction give no assistance to the practical inquirer. When an advocate is arguing any point, his address lies not in the making, but in the selecting of his inductions, to bring his case under any one of them. But when he has constructed his argument, he can appeal to science for the ascertainment of the truth or falsity of his conclusion. The principles and rules of induction are the same for every case; and the validity of the inductions themselves must be tested by other rules, which form the main business of the logic of induction. Induction, or the process of arriving at general truths, is the process of generalising from experience. Certain marks are found to be true of some individuals comprehended in a class, therefore they are true of the whole class. Certain attributes, that can be predicated of certain individuals of a class, can be predicated of the whole class. It is a process of inference, and excludes from it many operations to which the name is usually given.

2. Mill in his first Book defines induction as the process by which we infer, from particular propositions, propositions of *equal* or greater generality. Dr. Whewell (in a little book he has published in answer to Mill) denies this. He there says that propositions of *greater* generality are essential to the idea of induction. Again, Mill allows induction to brutes, which idea Dr. Whewell ridicules. Mill, again, calls the superstitious beliefs of the ancients inductions, which Dr. Whewell rejects. Again, Mill says that the process of trying hypothesis after hypothesis until one suits our purpose is the beginning, middle, and end of the philosophy of induction, as conceived by Dr. Whewell. The discovery of the planets' orbit by Kepler is, in the opinion of Dr. Whewell, an induction, while Mill calls it simply a description. Mill says that Kepler in one respect really performed an act of induction, and that is in concluding that the intermediate positions of a planet between two observations would coincide with the corresponding points on the elliptic circumference. But Dr. Whewell says that if we were to separate these things, there would remain nothing of Kepler's discovery. The word orbit *means* the path in which the planets would continue to revolve. So that the two things which Mill separates from the main act Dr. Whewell includes. In this respect at least, therefore, the opinions of the two philosophers may admit of a reconciliation. I have here merely stated the different views,

without presuming to decide points about which two of the greatest philosophers are at variance.

3. The mode of induction sometimes employed in mathematics does not properly belong to it. For instance, if we prove, with respect to the circle, that a straight line cannot cut it in more than two points, and if we do the same with respect to ellipse, parabola, &c., and then say that *because* the property is true of one of the conic sections, it is true of all the conic sections, we would be wrong. We say that the property is true of all the conic sections, not *because* it is true of a particular case, but because we can prove it to be true of them in the *same way* as in that particular instance. We prove, with respect to a triangle, that its three angles are equal to two right angles, and then assert that property as true of all triangles, not *because* it is true in this particular triangle, but because we can prove it to be true of other triangles in the same manner. Mill says that if the name of induction be given to this, "induction by parity of reasoning" would be the appropriate expression.

4. In every inductive inference one assumption is made, viz. that there are such things in nature as parallel cases; that what happens once will, under a combination of similar circumstances, happen not only again, but always. Some philosophers hold this tendency of ours to expect a regularity in the order of nature to be an instinct.

They say we are compelled by the constitution of our mind to believe,—that we cannot but believe it. Mill denies, as usual, any *necessity* that the mind is under of believing things external.

Again, the recognition of the law of causation is, as Mill says, the main pillar of inductive philosophy. The law, that every thing which begins to exist has a cause, is the vital part of the philosophy of induction. This law is itself a case of induction, though the latest in attaining strict scientific accuracy. It is arrived at by that method called induction *per enumerationem simplicem*, or by simple enumeration.

5. The uniformity which we observe, says Mill, in the order of nature, is not *an* uniformity, but *uniformities*.

Suppose A is followed by D, B by E, and C by F; then AB would be followed by DE, and ABC together would be followed by

DEF : ABC therefore is a complex uniformity followed by another, DEF. Now the law that ABC is followed by DEF is called by some a "law of nature," but the expression is incorrect. In strictness of scientific accuracy, the expression "law of nature" is reserved for those simple uniformities. The law, that A is followed by D, is properly a law of nature; and so of the other simple uniformities. The complex uniformity is not a law of nature, but a *derivative law*. It depends upon the fulfilment of those simple laws. It is a law that can be resolved into those simple laws. The rise of mercury in the Torricellian tube is not a law of nature, but a *derivative* law. It depends upon three other simple laws, and it is those laws that are strictly called laws of nature.

6. The four methods are, the method of *Agreement*, the method of *Difference*, the method of *Residues*, and the method of *Concommitant Variations*; and out of the first two there arises a modification, which is called the indirect method of Agreement and Difference. Let, according to Mill, the large letters of the alphabet represent causes, and the small, their effects. Suppose now, that we want to find the cause A, of an effect *a*. Now, in all the instances in which the phenomenon is seen to occur, if we can find some common circumstance in which they all agree, we conclude that that circumstance is connected with *a* in way of causation. If we can find some instances like AB, AD, &c., we conclude that A is the invariable antecedent of *a*. B cannot be the cause, because it was absent in the second instance in which the phenomenon occurred; and again D cannot be the cause, because the phenomenon is produced in the first instance without it. In the same way we find out the effect *a* of any cause A. The regulating canon of this method is the following :—

If two or more instances in which the phenomenon occurs have no circumstance in common save one, the circumstance in which alone the two sets of instances agree is the cause or effect of the given phenomenon.

Now in the method of Difference we take two instances which differ in nothing except the presence or absence of some one circumstance. If ABC is followed by *abc*, and BC by *bc*, we conclude with the most positive evidence that A is not only the invariable antecedent, but the cause, of *a*. The principle which regulates this method is the following :—

If an instance in which the phenomenon occurs, and an instance in which it does not occur, have nothing in common except the presence or absence of one circumstance, that one occurring only in the former, the circumstance in which the two instances differ is the cause or effect of the phenomenon.

In the method of Residues we subduct from any given phenomenon all that is ascertained by previous deductions to be connected with other phenomena; the residue is the cause or effect of the phenomenon which we wish to investigate. It is necessary in this method that the previous deductions should be carefully made. The formula for this method is almost wholly involved in its description; so that to avoid repetition I do not write it.

Now there is one class of agents for the investigation of the laws of which the methods already described are quite inapplicable. I mean those indestructible natural agents, those primordial agents, such as the sun, the earth, heat, &c., whose influence we cannot prevent, whose presence we cannot prevent, nor cause them to be present alone. For instance, in the case of a pendulum, in order to apply the method of Difference we want that the earth be destroyed, for [the purpose of] trying the experiment in her absence. Again the method of Agreement cannot prove anything in such cases; for if we say that in all our experiments the earth was present, and therefore the earth must be the cause of the vibrations, we might as well say that the sun was also the cause. The method of Residues is also inapplicable. Now, for the investigation of the laws of such agents, we have another method, called the method of Concommitant Variations. Though we cannot deprive a body altogether of heat, for instance, we might produce modifications in it. For example, by increasing the heat of a body we increase its bulk, and by diminishing the heat we diminish the bulk. Now this shows that one of the effects of heat is to widen the distances between the particles of a body. The principle that regulates this method is the following:—

Whatever phenomenon varies in any manner, whenever another phenomenon varies in some particular manner, is connected with that phenomenon through some fact of causation.

PESTANJI JAHANGIRJI.

2. Mill defines induction to be an act or operation of the mind

by which we arrive at general truths, either by generalization from particulars, or by inferring more general propositions from less general ones, or inferring particulars from particulars. In all this he confines induction to the operation of inferring unknown propositions from known ones. Dr. Whewell agrees with Mill with respect to the two first, but denies that induction is an inference from particulars to particulars. For, he says, inferring a particular pre-supposes a previous induction. Mill points out three processes of reasoning to which the term induction has been erroneously applied. The first is the syllogistic reasoning; the second, that of Mathematical demonstration; and the third, that process called description. The latter has been assumed by Whewell as a true induction. Suppose, says Mill, that a navigator were to see a piece of land in the ocean. At first he would be at a loss to tell whether it was an island or not. But he circumnavigates it, and concludes that it is an island. Now in this case there was no induction: there was no inference from the known to the unknown. All that he did was, that he collected a number of observations into one. He actually found it, though not by one, but a number of observations, to be an island. He was not placed at some conspicuous spot above the island, that he might tell what was unknown. This act of putting all the observations into one, Mill calls description. Mill also states that the process by which Kepler arrived at the fact that the planets move in ellipses was not an induction, though Whewell calls it by that name. In my opinion Mill contradicts himself, when he asserts this. For he himself declares that most of the astronomical truths are arrived at only by induction, or by indirect induction; and moreover he also grants that Kepler's discovery involved an act of induction. The fact which Kepler observed, that planets describe ellipses, was, says Whewell, "precisely the discovery" arrived at by induction. The collecting of these different facts is called by Whewell "colligation of facts," which he asserts is necessary to the process of induction.

3. In the inductive method used in Physics we arrive at an unknown conclusion from known ones. In Mathematics the mode of reasoning, falsely called induction, is the mere summing up of the various conclusions together. Suppose we take, for instance, the fifth proposition of Euclid. The enunciation states that the angles

at the base of an isosceles triangle are equal. The conclusion which is arrived at does not warrant us to affirm it true in all cases. It is not physically possible to construct such a triangle, or to construct a circle having its radii equal. What the proposition asserts is, that if a triangle or a circle were constructed, we, by the same sort of reasoning [which] we applied in this case, prove or show that it is applicable to them also. Whereas, on the contrary, the inductive methods used in Physics are that a certain event, which happens, or takes place, by the influence of certain causes, or according to certain laws, will take place again in the same manner, under the influence of the same laws, provided there is no counteracting cause.

4. In every inference from experience the universal axiom assumed is, that the future will resemble the past. But this does not authorize us to assert that a cause or law, which operates in a particular manner within the bounds of our experience, will operate in the same manner beyond these bounds. A cause which produced a certain effect yesterday, and in this world, will not produce the same effect a million of years hence, or in the remotest part of the creation. The axiom will be then limited, and will be true of that only which is adjacent in place and time.

6. The four methods of Experimental Inquiry are the method of Agreement, the method of Difference, the method of Residues, and the method of Concommitant Variations. The method of Agreement teaches us, that if "two or more instances of a phenomenon have one circumstance in common, that circumstance is the cause or effect of the phenomenon." If the phenomena ABC are followed by the phenomena *abc*, and ADE by *ade*, and so on, the phenomenon A remaining the same, and the same effect *a* being produced, we infer that A is the cause of *a*. The method of Difference teaches us, that "if an instance in which a phenomenon occurs, and another in which it does not occur, have all circumstances in common save one, that one in which they differ is the cause or effect, or a necessary part of the cause of the phenomenon." If the phenomenon ABC agree with the phenomenon BC in all except A, and if ABC are followed by *abc*, and BC by *bc*, in which case the effect *a* is not produced, when A is absent, then we can say that A is the cause of *a*. The method of Residues teaches us, that "subtracting from the effects of given antecedents those effects which have been

ascertained to be produced by certain antecedents, the remaining effect is produced by the remaining antecedent. If the phenomena ABC are followed by *abc*, and if it has been previously ascertained that *b* is the effect of B, and *c* of C, then subtracting these, we get *a* the effect of A. The method of Concomitant Variations teaches us that if a phenomenon varies according as another phenomenon varies, then there is a connection of cause and effect between them. For example, if in the complex phenomena ABC and *abc*, *a* has been observed to vary when A varies, the others, *bc* and BC, remaining the same, then we conclude that A is the cause of *a*.

7. Dew is the formation or deposition of moisture, on exposed objects, in the absence of rain or snow. Now it had been observed that moisture is deposited on the inside of glass windows, or on the outside of a glass of water, drawn out from a well in cold climates, and in other cases. Here they all agreed in its being cold before dew was formed. Then, by the method of Agreement, it was ascertained that the cold was the cause of dew. But the method of Agreement is not a potent method of investigation. In a complexity or composition of causes, it does not help us to ascertain the real cause. Let us then try the more potent method, that of Difference. Let us take a substance on which dew is deposited, and one on which it is not deposited. But before this, let us bring in the other method which is applicable here, viz. the method of Concomitant Variations. Let us vary the circumstances, and find whether cold is the cause of dew. This is tried by means of two thermometers, one of which is placed at the surface of the earth, and another above it. Then we find that where the cold was not present in the same degree, or, in other words, when the cause varied, the effect, the deposition *of dew*, varied in the same degree. Applying, then, the more rigid method of Difference, by taking a substance on which dew is not deposited, and one on which it is, we find that though the cold was present, dew was not deposited in one case. We find, then, that it must also depend upon the substance. But again by varying the circumstances, and bringing in the method of Concomitant Variations to test, in other words using different surfaces, *i. e.* rough and polished, of the same substance, we find the effect is not the same. We then find that it depends, not on the substances only, but on their surfaces. But again varying the circumstances, and

using similarly polished, or similarly rough, surfaces of different substances, we find also, by the method of Concomitant Variations, that the effect is not the same, and that the formation of dew depends upon the texture. We also find that those substances which conduct the least heat, and those which radiate most, are those on which dew is most easily formed, and that it depends upon the texture of the substances, and that on clothes which have a finer texture dew is easily formed. In all these cases cold is the necessary antecedent, and the texture and kind of substance have also their share in the production of dew.

HORMAZJI EDALJI.

*** These answers are given as written in the examination hall, except that No. 5 by Hormazji has been omitted. It has not been thought necessary to print any of the answers by the same students on the subject of Mental Philosophy.—See Report, p. 36, s. 161.

ETHICS.

Fourth Year's Students.

1. The chief distinction between probable and demonstrative evidence is, that the former is imperfect, and admits of degrees. It does not at once produce full conviction, although it may produce moral certainty. But in common language probable evidence implies something more than mere possibility; for when we say a thing is probably true, we mean that its happening is more likely than its non-occurrence. Again, the smallest degree of probability, when repeated many times, is capable of generating full conviction. Our once observing the waters of the sea to rise up at the rising of the moon will not induce us to believe that they will follow the same course to-morrow: but, if we observe the event invariably to take place at the rise of the moon, for some months or years, this correspondence will be sufficient to convince us that the elevation of the moon would be always followed by that of the waters. Now this our conviction arises from our observing a resemblance between the event, whose certainty we are ascertaining, and another which we have attentively noticed in all its respects. This resemblance may be either in the nature of the things themselves, in their

evidence, or in some other circumstances belonging to them; and as the resemblance is close or distant, so will be the likelihood of the events occurring. A small amount of resemblance produces only presumption; a considerable one, opinion; and a thorough one, full conviction. Thus our observation of the multifarious events and circumstances of life, and of the nature of man, enables us to determine, with more or less exactness, the degree of our hopes and fears; the mode of action certain persons will adopt in certain circumstances, and the success or failure of ours or other's undertakings. But a partial or careless observation will not bring us to the right conclusion, and the same will be the case, if we do not take into consideration all the modifying circumstances depending upon local peculiarities. Thus the sun-burnt inhabitant of Africa will scarcely be persuaded to believe that water, which he had always observed in a fluid state, can also exist in a solid lump, which can be broken like stone.

To us, creatures of finite capacities, probable evidence is of the utmost importance. In our course of life we daily meet with cases for which no demonstrative evidence can be obtained; and for determining these we are obliged to have recourse to the finding out of the probabilities on both the sides, that we may regulate our conduct in the safest manner. We adopt that mode of action by which the probabilities would be in our favour, whether in a great measure, or in the smallest degree.

2. The whole nature of man is compared by Butler to our material bodies, the several members of which perform their respective functions, and conduce to the preservation and safety of the whole body. So that the various appetites, desires, passions, and affections, which constitute the nature of man, may be regarded as contributing to the welfare and happiness of the individual himself, and at the same time tending to the happiness and well-being of the society in which he lives. Some of these principles in the nature of man are more nearly connected with his own welfare than others, which have a closer relation to the welfare of his fellowmen; and therefore they are divided into principles of *self-love* and of *benevolence*. Some great analytic writers on human nature have altogether denied the existence of the principle of benevolence in man, and have, by a stretch of metaphysical refinery, referred the various

beneficent actions which men perform, to mere selfishness, ambition, or desire of power existing in man. We cannot here adduce any demonstrative proof in favour of the benevolent principle, but refer every individual to the workings of his own heart. But if the principle of benevolence were the same with that of the desire of power, that power would be desired both consistently and inconsistently with the welfare of others. Let us now see what positive marks we can find of this principle of benevolence in man. If we can discover a principle in man which leads him to bear any affection towards his parents, brothers, or children,—which melts his heart at the sight of distress,—which induces him to open his purse to relieve the indigent,—which makes him feel shame for his friends or fellowmen,—which binds him more closely to his countrymen than to others,—that principle is nothing else than benevolence. We find him affected by the above circumstances, and we call that something, which affects him this way, the principle of benevolence. Indeed this principle is so strong in some, that they find the greatest delight in exercising it: and this has led some eminent philosophers to make it the essence of virtue, and to deny the character of virtue to every other constituent of human nature. Thus we see that man is framed to do good to himself, to seek his own happiness, and also that of his fellowmen. Both these principles agree with his nature; and both of them, although distinct in nature, jointly and severally contribute to the happiness of both the individual and the species. For conscience, which approves of them both, delights in the exercise of reasonable self-love as well as of benevolence.

3. Emulation is a desire to equal, or to become superior to, another person whom we know, or with whom we compete. Now this in itself has no ill-feeling towards the person with whom we compete, as long as we try to surpass him by our own exertions conducted in a fair manner: but a different sort of feeling is very likely to guide our conduct in such a case. Instead of endeavouring to raise ourselves up to his level, or above him, we [may] try to bring him down, and the feeling which prompts us to do [so] is envy. So that the object desired by emulation and envy is the same, but the means adopted are different: in one case we raise ourselves up, in the other we try to bring him down.

4. We often observe that things, destined for a certain determi-

nate end, fail in accomplishing that end. Plants and animals, which we try to improve in their species, die in thousands before any improvement is or can be effected; still there is no doubt we intended to improve them. If we see a bird of prey catch a small bird, and if, while the former is taking the latter to its nest, the victim escape from the claws of its captor through some contrivance, we cannot doubt that the bird of prey had intended to devour the little one, although the actual devouring did not take place. In the same manner it may be said that the seeds of plants, which are destroyed before they germinate, were intended to propagate and multiply the species; and from this it is clear, that although they were designed for a particular end, yet they did not answer it; and by the very same analogy we may say, that although men in general may be vitiated in their moral character, still the few who nourish the principles of morality in their heart, and follow the course marked out to them by their real nature, are intended by the Divine Being to improve the species by their instruction and example.

5. We are placed by nature in a condition where our happiness and misery are intrusted in a great measure to our own care, and God does not provide us with what we may require, but leaves that to our acquisition. Neither does God prevent us from doing a thing, nor oblige us to [do] it; but he has provided us with faculties to discern with considerable exactness the consequences of our actions. We are sure that if a man, who does not know to swim, leap into deep water, he will be drowned; so also we know that, if a man eat some unwholesome substance, he will injure his health. It is therefore clear, that God has annexed certain consequences to certain actions, and left man to chuse which actions he shall perform. Now the bad effects, or punishments, of certain actions being natural, or appointed by God, those who do evil, in spite of the forewarning, incur in the end natural punishments. But if there had been no forewarning, we would not have called the punishment natural. So that what makes the punishment natural is our doing the action in spite of the forewarning.

6. Every animal we see is placed in circumstances fitted to its nature; its nature and the circumstances correspond. We see man endowed with reason to make use of in devising schemes to defend himself from the attacks of the other animals. So we find the con-

stitution of other animals fitted for the sphere in which they are to live. The nature of man we see is a compound of several appetites, passions, and affections; and that these internal principles correspond with the external circumstances in which he is placed, and that they were really designed to fulfil their ends, may be shown in the following manner.

To habituate us to the order of submission which we are to observe in our relations to our fellowmen, we are endowed with the principle of obedience; and to render it complete we are, in the beginning of our lives, placed in circumstances peculiarly adapted for its developement. We are placed under our parents, who exercise over us a kind of commanding authority, to which we are accustomed from the very beginning. In order to prevent us from doing shameful actions, we are endowed with the feeling of shame. To stimulate us to do what is honorable and praiseworthy, the desire of esteem is planted in us. From this we see that the several affections and passions in us were given us to regulate our conduct towards the objects with which we are surrounded. But as a controlling authority over all these affections and passions, we have *conscience*, which, when properly obeyed, shows in what direction, and to what extent, these affections and passions are to be gratified.

NARAYAN BHAI.

HISTORY.

First Year's Students.

1. At this time, by a happy event, I mean the marriage of Ferdinand of Arragon with Isabella, queen of Castile, the prosperity of Spain was much increased, its power was consolidated, and a beneficial impulse was given to the enterprise and skill of the people (A. D. 1469). An addition was made to its territory by Sicily and Sardinia, which belonged to Castile, and by the conquest of Grenada from the Mahomedans. Next in importance to Spain might be urged the claim of France. Louis XI. added to it Burgundy, which was left without a male heir, by the death of Charles the Bold. Its power was, moreover, increased by the addition of some fiefs. Austria was in the possession of Maximilian, who added to it the king-

dom of the Netherlands, by his marriage with Mary of Burgundy, the daughter of Charles the Bold. Though for a time enjoying the benefits of peace, its tranquillity was disturbed by the quarrel in which Maximilian engaged with the Turks. The States of the Church were under a very able and energetic head, Pope Alexander VI., who united in his person both the spiritual and the temporal power. His great object was to confer the kingdom of Romania (the ancient Thrace) on his son Cæsar Borgia. According to Professor Heeren, the system of nepotism obtained during his time. The Porte was in the hands of Solyman II., who was an ally of the king of France. The reign of Henry VII. shed a halo of glory over England. Innumerable improvements, added to many discoveries and inventions, completed the catalogue of her prosperity and happiness. Venice was in a very prosperous condition by her commercial resources, under the controul of the Senate. She had also received an addition to her territory.

DARASHA DORABJI.

2. The chief causes of the rivalry between France and Spain were, on the part of the former, *1st*, claims on Milan; *2ndly*, those on the Spanish Navar[r]e taken from Louis the 12th in the former period; *3rdly*, the restoration of the feud of Robert de la Marke; and on the part of the latter, *1st*, claims on Milan, as being a fief of the Empire which had a common sovereign with it; and *2ndly*, claims on Burgundy. Charles V., king of Spain, from the vastness of the dominions he governed, was in no part unfettered, and not even in Spain, and his finances were greatly embarassed; while on the contrary Francis I. was the epitome of the French nation, and had a well-organized revenue. The French army which had come to Italy was defeated by that of Charles, who soon after, in 1525, so far defeated the French at Pavia as to take Francis himself as a prisoner to Madrid. This victory promised to make the king arbiter of Europe, had it not been frustrated by the internal constitution of his army. Notwithstanding this, a peace was concluded with Francis, in which Francis agreed to give over his claims on Artois, Amboise, and Milan; to cede to Charles Spanish Navar[r]e; give his two sons as hostages; and marry Eleonora. This agreement was no longer acquiesced in, and Francis soon found a pretext to commence the war. The Constable of Bourbon, an ally of the Emperor, had beseiged the Pope

in his capital, and had taken him a prisoner; but Francis, seeing this a favorable opportunity, declared war against Charles. This war, in which Francis took Piedmont and Savoy, was concluded by the Peace of Cambray (1529). The third war had for its pretext the murder of an ambassador of France in Milan, and was concluded after some battles by the Peace of Nice, in 1538. The terms of this peace, which were that every one should return what he had conquered, and their respective claims should undergo the examination of the Pope, were no longer in accordance with the plans of Francis, who, in 1542, commenced the fourth and last war. The pretext was found in the murder of the French plenipotentiaries in their passage through Italiy. Charles gained over Henry VIII., and, in conjunction with him, attacked France; but for their not acting in concert they lost the fruits they otherwise would have reaped. The whole contest was concluded by the Peace of Cressy, 1644, when it was concluded that the Duchy of Milan should be given to son of the French king, that Francis should renounce his claims on Burgundy, and Charles do the same on Spanish Navar[r]e. The consequences to Europe were the fixed character which England [and] Spain took, and the establishment of a balance of power.

PANDURANG BALIBHADRA.

4. Although Cromwell, in forming new Parliaments, sometimes elected the members in conjunction with his own officers, excluding all that were hostile to his government, could not effect a Parliament such as he desired. When it proved too untractable, he disliked and dismissed it. From his Parliaments the royalists were excluded, the presbyterians and the old republicans entered it, and sat upon isolated benches. They were full of anarchical ideas, incapable alike of being governed as of governing. They could not comprehend his elevated policy. The partisans of Cromwell were men little accustomed to triumph by Parliamentary tactics. His enemies were more used in this kind of war. And he saw men whom he had dethroned and defeated in continual opposition to him.

The foreign policy of Cromwell was characterized by its freedom from system and from passion. His views were too enlarged to regard such petty differences.

MOTILAL JIVANDAS.

5. At this time the Catholics and Protestants were at variance with each other, and jealous of each other's power. While the Catholics were more numerous, and found support in the State, the Protestants formed a compact union, had formidable navies, increasing towns, and found powerful advocates in England, Holland, and Venice.

The Elector of Saxony was placed at the head of the Protestants, by the services of his ancestor Maurice, and the influence of his electoral vote. He left the Protestants to their fate, and adhered to the object of attaining his own ends. While the other princes were hurried into the midst of war by religious enthusiasm, he cared for the preservation of his possessions. The Elector of Brandenburgh also followed the example of that of Saxony. The House of Hesse was at this time divided into two—that of Darmstadt and of Cassel. The former, being a Catholic, adhered to the cause of Austria; while the latter, being a Protestant, spent her whole resources and energy in promoting the cause of Protestantism, and always adhered to one plan, without being swayed by any personal motives. While the fear of Austria bound the Elector of Saxony and that of Brandenburgh to neutrality, the Prince of Anhalt, of Weimar, and others, rushed into the contest to save their liberties and faith.

The once mighty empire of Spain which Charles V. had constructed of the Netherlands, the two Sicilies, Milan, and the possessions in the East and West Indies, was fast sinking to decay under the hands of its weak monarchs Philip III. and Philip IV. Spain had nearly lost all her foreign possessions abroad. While external splendour concealed the wounds at which the life-blood of this king[dom] was oozing, its internal resources were fast verging to decay.

In Italy many of the states were possessed by foreign powers, who often embroiled her in continental wars. Hence the vacillating conduct pursued by the Popes. If they wished the downfal of Protestantism, and the ascendancy of Catholicism, on the other hand they had [reason] to bless the arms of the Protestants, who checked the increasing power of Austria. What would have become of the Reformation had the Bishop of Rome and the Prince of Rome, acted with one definite plan?

The glory of France had vanished with its great Henry. It was now governed by weak princes, mere tools in the hands of ambitious

ministers. Louis XIII. had fomented an insurrection in the country, and had formed a conspiracy against his own mother.

If the glory of France was on the wane, the republic of Holland was increasing in power. The spirit of William of Orange, which had enkindled them to form a Republic, had not died away. Its increasing commerce and formidable navy made it a prominent power in Europe. Knowing that they owed their freedom to the support of foreign powers, they did not neglect to aid the Protestants, who asked their assistance.

England was at this time governed by James I., who left his daughter, son-in-law, and grandchild to the fury of the Protestants. He spent his time in establishing the legal right of kings. In the time of his son Charles I. the country became involved in a civil war.

The two kingdoms of the North, Denmark and Sweden, commanded brilliant prospects of future. Denmark was governed at this time by Christian IV. Gustavus Vasa had rescued Sweden from the vassalage of Denmark, and created [it] into an independent monarchy. It was now governed by Gustavus Adolphus, the great hero of the thirty years' war.

The immediate causes of the thirty years' war were, 1*st*, The intolerant conduct of the Protestants to each other, the Lutherans and Calvinists; 2*nd*, The bigotry, tryranny, and increasing power of the Austrian princes. The external circumstances which contributed to its spread and duration were, 1*st*, The part which the German league took in it; 2*nd*, The part taken by France; 3*rd*, The renewal of the war between France and Spain; 4*th*, The part taken by Sweden. The internal was the spirit of religious faction, and the consequent dissolution of the constitution of the empire.

EDALJI SHAPURJI.

7. The rapidity with which the doctrines of Luther were received in his own and in other countries was truly astonishing. Princes and people at once espoused his cause, in his struggle with the Papacy. From the nature of the contest, politics was soon involved in it. Spain and Austria became the chief pillars of the Papal power. With the spirit of religious inquiry came also the spirit of civil liberty; hence it was the prevailing opinion in the

time we are considering, that Catholicism was the buttress of despotism and tyranny, and Protestantism the banner of liberty. It was the spirit of religion that desolated France for half a century, emancipated Holland from the tyranny of Spain, enabled the English people to brave the formidable power of Philip. II., and the Protestant princes of Germany to defeat the ambitious designs of the Austrian princes on the liberty of Germany. There was a continued contest between Protestantism and Catholicism, from the day on which Luther publicly gave up communion with Rome, to the Peace of Westphalia, that is, from 1517 to 1648, which permanently settled the religious dispute of Europe. The reformation materially altered the social and political condition of Europe.

MAHIPATRAM RUPRAM.

ENGLISH LITERATURE.

Second Year's Students.

2. Two species of lyric poetry were cultivated among the Greeks, namely, choric and melic. The latter was cultivated in the Ionian Islands, and the former in Greece. Alceus and Sappho in Eolia wrote melic poetry ; and in Ionia, Anacreon, Ibicus, and Artelochus [Archilochus]. Choric poetry was extensively cultivated in Thebes in the time of Pindar and Simonidies [des]. Melic consists of the same arrangement of lines, but in choric, though the strophe and antistrophe regard that rule, yet in epode the arrangement differs, and it consists of greater number of lines. Choric poetry was to be accompanied by a regular band of singers, and the melic sung on a lyre. Gray's *Progress of Poesy* is an imitation of Pindar, and hence it is choric. Collins' *Odes to Fear* belong to the same species ; but Gray's *Ode to Adversity*, his *Elegy*, and Collins' *Ode to Evening*, belong to the former species, namely melic. This kind of choric poetry is now seldom written ; melic is written by all the modern poets, as Campbell, and some others of distinction.

3. There are three kinds of poetry—dramatic, lyric, and epic. Epic is merely an historical account of some old events and heroes ; in this no original sentiments of a poet come into activity. *Paradise Lost* and Southey's *Macdoe* are epic poems. But in lyric, a poet

gives his own sentiments, and depicts the scene in a moral point of view. It is sometimes full of happy ideas. A poet takes one or two sentiments as the basis of his poem, and on them he pours his heart. When we read some lyric poems, they are full of moral and happy thoughts. Hence lyric poetry is difficult to be understood, while epic is generally intelligible and interesting.

BHAIROANATH MANGESH.

4. During the interval between the Revolution and the end of the reign of Anne a peculiar kind of literature sprang up. Anne's reign has been called the Augustan Age of English Literature, from its supposed resemblence in intellect to that of the Emperor Augustus. At this time both poets as well as prose writers acquired high celebrity. The praise of good sense and polished style was due to poets, and that of describing the manners, and discussing on the morals of the society, was awarded to prose writers; but this notion has not been held correct by modern critics, who praise the writers of the age of the Restoration. Edinbourgh Review remarks on the character of the writers in the age of Pope as follows: that, considered as poets, they had no force or greatness of fancy, no pathos and no enthusiasm; and considered as philosophers, they had no originality, no depth, and no comprehension. This was the period in which first began the publication of regular and small sheets of paper, containing each an essay, or an ancedote, or a tale. Before this time there was no regular paper, except one in France, edited by the celebrated Montaine, and at another time by La Bruyere, also a Frenchman. This was the first time that this sort of literature began in English, which afterwards produced a great influence on the manners and customs of societies. Although Pope was not himself an editor of a separate paper, yet he assisted much the writers of this kind of literature by his contributions.

BALKRISHNA SADASHIV.

6. Prior to the publication of the periodicals, the people as well as the court were greatly imbued in vices and luxuries, but since those periodicals have found their access to the poor as well [as] the rich, the vices and foibles of the age began gradually to dwindle into nothing. They derived the capability of judging the merit of authors. They were taught to admire those who deserve

merits. General knowledge, which was hitherto beyond their reach, now fell with great ease in their hand. Now a general reading became the chief source of amusement, which was once afforded by the cock-fighting and other nonsense things.

KAHANDAS TAPIDAS.

8. The style of Johnson is universally known to be bombastic; that of Goldsmith, as is seen in the Citizen of the World, easy and elegant. Johnson's composition appeared to greatest advantage when it moralised its reader, and gave out sublime ideas; Goldsmith's was so on every subject, because his expressions were popular and [intel]legible. Johnson's attempt at humour failed grievously; Goldsmith was a great humourist. Goldsmith's light but insinuating criticism was read universally; that of Johnson very seldom.

Boswell, who was a biographer of Johnson, almost idolized him at the expense of Goldsmith, whose easy and fluent language seemed commonplace when compared with the lofty, sonorous, and bombastic expressions of his hero. Johnson appears at advantage in the pages of his biographer, Goldsmith in those of his own. Johnson in colloquial discourse surpassed Goldsmith, who, as he himself tells us, can argue better with pen in his hand.

FARDOONJI JAMSHEDJI.

9. The chief requisites of periodical literature are the following:—The periodical should not make any direct attacks on any persons or any of the prevailing customs and manners, &c., howsoever corrupt and injurious they may be, because

"Blunt truths more mischiefs than nice falsehoods do."

It should be conducted by able and accomplished personages, who must be thoroughly acquainted with the knowledge of the people, their customs and manners, their habits and prejudices, and every thing concerning those who they think constitute a majority amongst their readers. Besides, the periodical should more than once touch upon such topics as may be deemed likely to create taste and interest amongst its readers; and moreover, that it should have a large sale, or should be accessible to the majority of the people (the middle class who should be inte[n]ded to desire a great advantage from it), the periodical should be very cheap. By these and

some other similar means the periodical acquires a great weight in the minds of its readers, and is held by them in great estimation, provided the editorial remarks that appear in them are just, correct, and not in any way injuring the feelings and interests of the people at large. The person conducting such a periodical should be himself honest, learned, intelligent, well-informed, and thoroughly acquainted with the arts and sciences prevalent at the time.

HURRYSHANKAR BALCRISHNA.

JURISPRUDENCE.

Third Year's Students.

1. Coercive law is that law which regulates the *external* actions of men. It has nothing to do with the inward feelings, thoughts, &c. of men, but contents itself with ensuring such standard of reciprocal conduct as will enable each individual to prosecute his exertions for the promotion of his happiness and welfare, for the perfect development of his nature, in order to fulfil the end and aim of his existence.

International law is the law which regulates the intercourse between *nations*, as relating to commerce, times of peace and war, rights of ambassadors, &c., with a view to promote their mutual connection and the general prosperity of mankind. The international law (or the *jus gentium* of the Romans) requires that nations should do in times of peace as much good to each other as lies in their power, and in times of war as little harm as possible, and so on.

National law is the law that regulates the conduct and actions of *individuals* of a society, towards each other. The coercive law of a state is its national law.

Now the national law of a state is a general one, and it consists of two departments—the public and the private law. The latter relates to the *private* relations of individuals, and the former regulates the connection between individuals and the State.

The civil law is the law by which the differences and disputes among *individuals* are settled; and the criminal is that which prevents (not, as some suppose, *revenges*) the commission of crimes

prejudicial to the interests of society. But it would be difficult to give any fixed meaning to the word *civil*, for it is used in numerous senses.

Now of the laws of a country some might have come down from time immemorial, and acquired the sanction of general usage, while others are established and enforced by the legislative body of that country. The former are called *customary*, and the latter *statutory*.

The shortest definition of jurisprudence is, that it is the science of law. *General* jurisprudence treats of the resemblances and distinctions which are common to various systems of law. And *particular* jurisprudence is the science that treats of a particular system of law once prevalent, or now prevailing, in any particular country or state.

Jurisprudence is the science of law as law *is*, whether it be good or bad ; while legislation is the science of law, as law *ought to be* : it must be good. For good legislation it is necessary that we must have a previous knowledge of jurisprudence. Jurisprudence should precede legislation.

2. The want of success among jurists in their attempt to discover a *jus naturæ* arose probably from some inaccuracies in their mode of investigation. The first mistake they committed was their non-discrimination between ethics and positive law. And from this confusion of the two arose the absurd division of rights into perfect and imperfect, of Grotius. Again their failure is to be attributed in a great measure to the *a priori* method of investigation they adopted instead of the inductive, so successfully followed in physical sciences ; and they at the same time assumed some states of things not warranted by actual observations of facts.

Lord Bacon was the first person who pointed out the true method of prosecuting the study of law, by recommending a comparison of the *legis* [*es*] *legum*, or the general principles of jurisprudence.

Grotius investigated the international law of states. Montesquieu, taking more enlarged and rational views, considered law as springing from the human constitution, from the different forms of government that have gradually grown up among different countries, and from the circumstances with which mankind are surrounded. Pothier described minutely the private law of individuals on the

subject of contracts; Locke investigated the principles of constitutional law; Sir Mathew Hale traced the history of English common law; Blackstone wrote of the laws of England; Bentham wrote about the principles of legislation, and Hugo and Savigny developed most fully the doctrines of what has been called the "Historical School."

3. The classical jurist consults, unfolded, and arranged in their own system, the different regulations adapted to the various relations of the individuals. And the discovery of Justinian's compilation led to a systematic arrangement of the laws of the different European states that had sprung up from a mixture of feudal manners and usages, and the canon law of the ecclesiastics.

The Greeks contributed much more to the cultivation of the international than of the national law. And of the national they cultivated more the public than the private branch.

4. Until very recently jurists engaged themselves in inquiring in [to] the jurisprudence of particular states, but when the researches of Sir Wm. Jones and others took place, many important and general principles were known, and the jurists began to devote themselves to the study of general jurisprudence. Several contributions were made to the philosophy of law by Sir Thomas Strange, Sir Wm. Jones, Ellis, Colebrooke, Sir William Macnaghten, and others.

5. The answer to this question is very short. We compare different languages, and find out from such a comparison the general principles of the philosophy of grammar common to different nations, as Bopp has done in his "Comparative Grammar." There is first a language, and out of it grows grammar; and, by comparing different languages, a philosophy of grammar is constructed. The same is the case with jurisprudence. By inquiring into the laws of a particular state, we create a philosophy of jurisprudence of that particular state; and by comparing the laws of different countries, we ascertain the principles that are common to them all, and thus construct a philosophy of general jurisprudence.

6. Ethics embraces actions that are both virtuous and vicious. Now there are some virtuous and vicious actions that must be left to the discretion of the individual. While on the contrary there are others for the performance of, and for the abstinence from,

which individuals ought to be *compelled.* Now the actions which have this common attribute of being enjoined or prohibited may be referred to what, in ethics, is called the *virtue of justice.* There are many points of distinction between this virtue and the other virtues, the description of which would be too long to be here inserted. Suffice it to observe, that the observance of this virtue is of much more importance to the interests of society than that of other virtues. There is evidently, then, a foundation in nature for applying compulsary means to certain of the external actions of men. It appears, then, that, as far as depends on the feelings of moral approbation or disapprobation generally prevalent among mankind, *justice* may be taken as the fundamental principle of law.

But it has been objected that the feelings and sentiments of moral approbation or disapprobation are very different in different countries and in different ages, and that therefore they do not afford so invariable a standard as to become the fundamental principle of law. And again the boundaries between what virtues ought to be observed by individuals, and what ought not to be observed, have not been precisely ascertained. Law, therefore, ought not to be looked upon *as entirely* dependent upon the feelings of moral approbation or disapprobation. There is another additional reason for considering law as distinct from ethics. There are certain actions which men perform with a view to supply their wants and comforts, to which the terms *just* and *unjust* are not applicable, and for the regulation of which it is requisite that *some* law should be made (such as inheritance, succession, &c.)

Traced thus to its root, it appears that the principle of legality, as distinguished from morality, differs little from the principle of general expediancy.

The fundamental principles of law are already enumerated. They are *justice,* reciprocity in the conduct of individuals, and the principle of general utility. It should be observed at the same time that there are many difficulties in the practical application of these principles.

7. The law of persons treats of those rights, duties, legal qualifications or disqualifications, and conditions, with which individuals are invested. And the law of things is conversant of all these, as

abstracted from those which constitute conditions. The law of persons contains rather the exceptions of the law of things; and the law of things is modified in its application by the law of persons.

The conditions that constitute the law of persons Austin divides into political, private, and anomalous; and private again into domestic and professional. This division is not probably correct.

Now, understanding jurisprudence in the limited sense in which it is used, political conditions would not be included in it; do not properly belong to it.

8. Rights are divided into two classes, primary, and sanctioning or secondary. Primary rights are those which do not spring from the infringements of other rights, while sanctioning are those which do so arise from the violations of other rights. The latter spring from the infringements of the former. Again rights have been differently classified, according to the manner in which they avail. Those rights that avail against an indefinite number of individuals, against the world at large, are called *rights in-rem*, or *adversis omnes*, and those that avail against definite persons, against the particular individual or individuals, are called rights *in-personam*. The matter of primary rights again may be arranged under four sub-divisions,—*rights in-rem* as existing *per se*, *rights in-personam* as existing *per se*; and the other two classes arise from the simple and complex aggregations of these two kinds of rights, rights *in-rem* and rights in *personam*.

As the family rights and the rights to obligations relate to definite individuals, some persons have been led to identify these two classes, or contrast them both (as being more nearly allied), to property, which does not contain such an individual relation. But Savigny says that rights to obligations are more nearly connected with property than family rights, because the rights to obligations and property rights both extend the power of the individual beyond its natural limits, while family rights are intended for the completion of what is defective in the being itself.

PESTANJI JAHANGIRJI.

Fourth Year's Students.

1. Coercive means compulsary; and coercive law means law which we can force individuals to observe. Coercive law is applicable

to the external actions of man. International law is that which regulates the conduct of different states towards each other as individuals. National law is that which regulates the internal management of a state; public law treats of the relations between the state and its subjects; and private law among individuals themselves of the nation. Civil law consists of those rules which are designed to protect and restore the violated rights of individuals; and criminal consists of those rules formed to protect the rights themselves, and suppress their violation. Customary law consists of those customs and usages which exist in a nation from time immemorial, and which have acquired the force of law by judicial decisions founded on them. Statutory law consists of the numerous acts, edicts, and statutes formally promulged by the legislature. Particular jurisprudence is the science of positive law, which either now holds, or once did hold, in a particular nation; while general jurisprudence takes cognizance of all distinctions and principles which are common to various systems of laws. Jurisprudence and legislation are so far connected as the former informs a jurist the existing state of law in a country, that he might improve on them, and supply those laws which are wanting,

2. Philosophers have failed to discover a *lex naturæ*, as a prototype of all human law, not on account of the non-existence of such a law, but on account of the wrong modes they have adopted in investigating their researches. In the beginning they have not observed any distinction between natural law and ethics; and from this confusion they have come to conclusions that the standard is nothing but a collection of moral maxims. This conclusion led to the division of rights into perfect and imperfect, or those that could be forced, and those that could not. Again they have proceeded on an *a priori* method, and assumed principles which have no actual existence; such as the natural state of man before the formation of society, or the state of warfare, and a contract among men for their mutual benefit; or the first convention of men for forming plans and regulations for their future conduct.

Lord Bacon was the first person who recommended the right mode in such investigations, by instituting a comparison between the codes of different nations. Grotius, on account of the political disturbance among the European states at the time he lived, was

led to investigate the principles of, or almost to found, international law. Montesqueau, despising the metaphysical discussions of many philosophers on this subject, clearly stated the origin of law to be in human nature, and the circumstances in which man is placed on this earth, such as climate, soil, &c. Pothier investigated the principles of law on contracts applicable to a civilized nation. Locke illustrated the principles of constitutional law; Hale traced the sources of, and analized, common law. Blackstone popularized the English law; Bentham analized the different departments of law, and became founder of the analytical school. Hugo combined philosophy with the study of old jurisprudence, and Savigny investigated the principles of law historically, and became the founder of the historical school.

3. The different nations that established themselves on the ruins of the Roman Empire also adopted some portion of the Roman law in their codes, [which] had a softening effect on the rude manners of the people; the ecclesiastical law was mostly derived from the Roman law, and was exercised by the clergy, and thus a better and more humane principle was introduced in the codes of almost all the nations. Again the discovery of the code of Justinian at Amalfi led [to] the arrangement and regular classification of the heterogenous codes of the European nations, which consisted of the rude feudal manners and the ecclesiastical law of the clergy according to the Roman model. The Greeks chiefly cultivated the international department of law and the political division of national law. They were led to pay attention to these particular branches because the country itself was divided into several independent states, and frequent collisions took place among these states. Besides, their constitution was of the republican form, and almost all relations were of a public nature.

5. People first pay their attention to the laws of their own country; and the study of the laws of other nations is slow, and mostly gradual; the same is the case with language. European nations first studied the laws of their own country, and then turned their attention to those of the Romans and the Greeks. So likewise after the study of their [own] languages they studied the Roman and Greek languages. When the East was traversed by European people, the languages and laws of the Asiatic nation

also became the objects of study of European nations. So that the researches in finding the principles and resemblance in the law of different and distinct nations have kept pace with those made in finding out the analogy and resemblance in different languages.

6. Coercive law may be either viewed as a branch of ethics or distinct from it. It may be said to be founded on the principle of justice, or the principle of moral approbation and disapprobation, which are both included in ethics, and therefore the law itself which has these as its basis may be considered as a branch of ethics. But the sense of approbation and disapprobation varies with different people, and the boundaries between justice and other virtues are not clearly marked; and besides some actions, such as concerning our bodily wants and comforts, are neither objects of moral approbation nor disapprobation; and therefore from these difficulties it has been thought, by some, better to consider coercive law separate from ethics. The fundamental principles of coercive law are justice, the reciprocity in the actions of individuals, and general expediency or utility.

7. Law may be divided into two main branches, as law of persons and law of things; the former treats of those rights, duties, capacities and incapacities which constitute persons or characters, and subject them to various branches of legal authority; and the former treats of those rights and duties as abstracted from those constituting the persons. The law of things is pure law, and the law of persons is an exception to pure law, or is mixed with other elements, such as moral law, natural law, &c. Austin divides the condition of persons into three classes, 1, private, 2, political, and 3, anamolous; and he subdivides the first into domestic and professional. All these four divisions can be reduced to only two, domestic and political; for the professional really comes under the political, as we find professional persons, such as barristers, endowed with privileges which are likewise enjoyed by public persons. The third division is also included under the second, if we take into consideration not only the public privileges which persons enjoy, but also the disqualifications under which they suffer. Out of these classes of persons the domestic only belongs to general jurisprudence, while the others can be referred only to particular states; for they vary in different nations, and belong to a different branch of law.

8. Rights are divided into two classes, as they are available against the world at large, or against a determinate person or persons. My right to the property I have bought is against all ; but my right to the services of him whom I have engaged is against him only. Family relations are also with determinate person or persons, such as sons, brothers, parents, &c. ; and from this common quality of family relations and obligations, of their being concerned with determinate individuals, Savigny has identified them, or contrasted them with rights to property, which do not involve any individual relation. But great difference can be found between family relations and obligations. The subjects of the latter are optional ; that any subject can be made the basis of a contract, while the former arise from the organic nature of man ; the latter are temporary, while the former are permanent, and arise out of necessity.

NARAYAN BHAI.

MATHEMATICS.

First Year's Students.

1. Logarithm of 1 in any system is always nothing ; therefore we must take the logarithm of $(1 + x)$. Let it be equal to an indeterminate series : thus

$\log (1 + x) = A + B x + C x^2 + D x^3 +$ &c.

If $x = o$, $\log 1 = A$; but $\log 1 = o$; therefore $A = o$

$\therefore \log (1 + x) = B x + C x^2 + D x^3 +$ &c.

$\therefore \log (1 + \overline{2 x + x^2}) = B (2 x + x^2) + C (2 x + x^2)^2 + D (2 x + x^2)^3 +$ &c. (1)

Also $\log (1 + x) = B x + C x^2 + D x^3 +$ &c.; squaring this,

$\log (1 + \overline{2 x + x^2}) = 2 B x + 2 C x^2 + 2 D x^3 +$ &c.; equating these with (1)

$$\begin{aligned} 2 B x + 2 C x^2 + 2 D x^3, \text{ &c.} &= B (2 x + x^2) + C (2 x + x^2)^2 + \text{&c.} \\ &= 2 B x + B x^2 \\ &\quad + 4 C x^2 + 4 C x^3 \\ &\quad + \text{&c.} + \text{&c.} \end{aligned}$$

Now, equating the coefficients of like powers, we have

$B = B$, $C = -\frac{1}{2} B$, $D = \frac{1}{3} B$, $E = -\frac{1}{4} B$, &c.

$\therefore \log (1 + x) = B (x - \frac{1}{2} x^2 + \frac{1}{3} x^3 - \frac{1}{4} x^4 +$ &c.)

w in the Naperian system B is taken equal to 1,

$(1 + x) = x - \frac{1}{2}x^2 + \frac{1}{3}x^3 - \frac{1}{4}x^4 +$ &c.; take $x = -x$

$(1 - x) = -x - \frac{1}{2}x^2 - \frac{1}{3}x^3 - \frac{1}{4}x^4 -$ &c.

$(1 + x) - \log(1 - x) = 2(x + \frac{1}{3}x^3 + \frac{1}{5}x^5 +$ &c.); or

$\log\left(\frac{1+x}{1-x}\right) = 2(x + \frac{1}{3}x^3 + \frac{1}{5}x^5 +$ &c.); let $Z = \left(\frac{1+x}{1-x}\right)$

$\therefore Z = 2\left\{\left(\frac{Z-1}{Z+1}\right) + \frac{1}{3}\left(\frac{Z-1}{Z+1}\right)^3 + \frac{1}{5}\left(\frac{Z-1}{Z+1}\right)^5 +\right.$ &c. $\left.\right\}$

put $\frac{n+1}{n} = Z$ we shall have

$\log\left(\frac{n+1}{n}\right) = 2\left\{\left(\frac{1}{2n+1}\right) + \frac{1}{3}\left(\frac{1}{2n+1}\right)^3 + \frac{1}{5}\left(\frac{1}{2n+1}\right)^5 +\right.$

&c. $\left.\right\}$ or

$\log(n+1) = \log n + 2\left\{\left(\frac{1}{2n+1}\right) + \frac{1}{3}\left(\frac{1}{2n+1}\right)^3 + \frac{1}{5}\left(\frac{1}{2n+1}\right)^5 +\right.$

&c. $\left.\right\}$

$a^x = A + B x + C x^2 + D x^3 +$ &c.

$\therefore a^{2x} = A + 2 B x + 4 C x^2 + 8 D x^3 +$ &c.; but the square of the

$a^x = A^2 + 2 A B x + B^2 x^2$

$+ 2 A C x^2 + 2 B C x^3 +$ &c.; equating the terms of a^{2x}, and equating the coefficients, we get $A = 1$, $B = \frac{B^2}{2}$, $D = \frac{B^3}{1.2.3}$, &c.; substituting this in the first,

$a^x = 1 + B x + \frac{B^2 x^2}{2} + \frac{B^3 x^3}{1.2.3} +$ &c.

Now $(a - 1)^x = a^x$; actually expanding the first side we have

$(1 + a - 1)^x = 1 + x(a - 1) + x\frac{(x-1)}{2}(a-1)^2 +$ &c.

$\therefore (1 + a - 1)^x = 1 + x\left\{(a-1) - \frac{1}{2}(a-1)^2 + \frac{1}{3}(a-1)^3 +\right.$ &c. $\left.\right\}$

$+ \left\{(a-1) - \frac{1}{2}(a-1)^2 + \frac{1}{3}(a-1)^3 +\right.$ &c. $\left.\right]^2 \Big\} +$ &c.

$\therefore a^x = 1 + x \log a + \frac{x^2 \log^2 a}{1.2} + \frac{x^3 \log^3 a}{1.2.3} +$ &c. Now $\log a = 1$

$\therefore a^x = 1 + x + \frac{x^2}{1.2} + \frac{x^3}{1.2.3} +$ &c.

3. [illegible] let S be the position of the sun. Now if we

find out the angle S P R, we shall know when the sun shall [illegible] the horizon after midnight. Now, cos S P R = tan P R. cot [illegible] but P S = 90° — dec.

$\therefore$ cos S P R = tan lat. tan dec.

$\therefore$ log cos S P R = log tan lat + log tan dec — 10

log tan lat = 9·5361505

log tan dec = 9·5361505

$\therefore$ log cos S P R = 9·0723010

but log cos 83°, 13′ = 9·0723055 nearly.

Converting this into time, we shall have $5^{h.}\ 32^{m.}\ 52^{s.}$ [illegible] of sunrise, nearly ; and $6^{h.}\ 27^{m.}\ 8^{s.}$ time of sunset, nearly.

4. Let $f(x) = x^n + A_{n-1}x^{n-1} + A_{n-2}x^{n-2} +$ &c. [illegible] will be of the form $P + Q\sqrt{-1}$ if we substitute $a + b\sqrt{-1}$ [illegible] x. The modulus of this is $\sqrt{P^2 + Q^2}$. Now if we prove th[illegible] for any values of a and b we get this modulus a positive quanti[illegible]her values of a and b exist that would make it less ; so that it [illegible]last possible to give to a and b such values as will make this [illegible]lus, and consequently the quantity of which it is the modulus [illegible]l to nothing ; $a + b\sqrt{-1}$ will be a root of the equation.

$$f(x + h) = f(x) + f_1(x)\,h + f_2(x)\,\frac{h^2}{2} + \text{&c.}\ldots$$

Now in this $f(x)$ will give a result of the form $P + Q\sqrt{}$ [illegible]hen $a + b\sqrt{-1}$ is written for x ; but we are not sure [illegible]l the terms after the first shall remain for the same substitu[illegible] Let the least power of h, for which the term does not vanis[illegible]alled h^m ; then that term will be of the same form, that is $(R + [illegible]\sqrt{-1})$ h^m ; and any others that remain will be also of the same [illegible] Now if we make an increment h to the value of x, we [illegible] have $a + b\sqrt{-1} + h$. Call the result of this, $P' + [illegible]\sqrt{-1}$; therefore $P' + Q'\sqrt{-1} = P + Q\sqrt{-1} + (R + S\sqrt{}$ [illegible]$h^m +$ real terms in $h^{m+1} + h^{m+2} \ldots + h^n$. Now the value [illegible] quite arbitrary ; we may take it minus or plus, or of any for[illegible]ill suit our purpose ; therefore replace h by k ; then $P' + [illegible]\sqrt{-1} =$ $P + Q\sqrt{-1} + (R + S\sqrt{-1})\,k^m +$ real terms i[illegible] + &c. Now in an equation of this sort the real part is eq[illegible]e real, and the imaginary to the imaginary.

$\therefore P' = P + R\,k^m + \&c.$

$Q' = Q + S\,k^m + \&c.$

$\therefore P'^2 = P^2 + 2\,P\,R\,k^m + \&c.$

$Q'^2 = Q^2 + 2\,Q\,S\,k^m + \&c.$

$\therefore P'^2 + Q'^2 = P^2 + Q^2 + 2\,(P\,R + Q\,S)\,k^m + \&c.$

Now k is arbitrary; therefore $2\,(P\,R + Q\,S)\,k^m$ may be rendered negative, and the whole result after $P^2 + Q^2$ may also be made to take the same sign.

$\therefore P'^2 + Q'^2 < P^2 + Q^2$ or $\sqrt{P'^2 + Q'^2} < \sqrt{P^2 + Q^2}$.

This was the thing required to be proved.

5. If we have any series of algebraic terms with certain signs, we can easily know the signs of the terms of its product by $(x - a)$; thus let $+ - - + - - +$ be the signs of a series; the signs of the product will be

$$\begin{array}{r} + - - + - - + \\ \quad - + + - + + - \\ \hline + - + + - + + - \end{array}$$

From this it appears that there are in the product as many ambiguities as there are permanencies in the original; and that for every interpretation of the ambiguities, we have in the product one variation more than in the original. Now $(x - a)$ is a factor corresponding to a positive root of the equation; therefore we conclude that the real positive roots cannot exceed the number of variations. We know also, that if we change the alternate signs of an equation, we change its positive roots into negative, and the negative into positive; and that we shall have in the new equation as many variations as there were permanencies in the original. Therefore the number of negative roots cannot exceed the number of permanencies.

6. Suppose the doubtful interval is between a' and b'; call $b' - a' = r$. Transform the equation from a' directly to b', and mark the number of variations lost in the transition. Now transform the equation in a' into another whose roots shall be the reciprocal of p'; then transform this transformed equation by $\frac{1}{r}$, and observe the number of variations remaining in this last; then the rule is, if no variation remains in $\left(\frac{1}{r}\right)$ all the roots between a'

and b' are imaginary; if the variations lost in (b') be equal to the variations remaining, the doubt is not vanished; if a less number remains than is lost in (b'), the difference between the two is due to imaginary roots, and the doubt is partially removed; in these last cases we should go on transforming by $\left(\frac{1}{r}+1\right)$, $\left(\frac{1}{r}+2\right)$, &c. until we lose all the variations; if a doubtful interval occurs again, we should proceed as before.

7.
$$\begin{array}{llll} 1 & 0 - 10 + 13 & (1 & \\ 1 & 1 - 9 + 4 & = N' & \\ 1 & 2 - 7 = & A' & \\ 1 & 3 = & A'_2 & \end{array}$$

$$\begin{array}{llll} 1+3 - 7 + 4 & (1 & \ldots\ldots\ldots\ldots & (A) \\ 1+4 - 3 + 1 & = N' & & \\ 1+5 + 2 = & A' & & \\ 1+6 & & & \end{array}$$

$1 + 6 + 2 + 1$ .....two variations are lost.

Double rule of signs.. $\left\{\begin{array}{cccc} + & - & - & + \\ + & 0 & - & + \\ + & + & - & + \end{array}\right\}$

The doubtful interval is between 1 and 2,

Reciprocal of (A) $4 - 7 + 3 + 1$ (1
$4 - 3 - 0 + 1$
$4 + 1 + 1$ ..
$4 + 5 + 1 + 1$.

In this there is no variation; therefore two roots of the equation are imaginary.

GANESH DHONDEO.

Second Year's Students.

2. Let $\tan a = \frac{1}{5}$ $\therefore \tan 2a = \frac{2 \tan a}{1 - \tan^2 a} = \frac{\frac{2}{5}}{1 - \frac{1}{25}} = \frac{5}{12}$

$\therefore \tan 4a = \frac{\frac{5}{6}}{1 - \frac{25}{144}} = \frac{120}{119}$, which is greater than $\tan 45^\circ$

$\therefore 45^\circ = 4 (\tan^{-1} \frac{1}{5}) - \tan^{-1} b$; or let $b = \tan (4a - 45^\circ)$

$b = \frac{\tan 4\,a - \tan 45^\circ}{1 + \tan 4\,a \tan 45^\circ} = \frac{\frac{4}{5} - 1}{1 + \frac{4}{5}} = -\frac{1}{9}$; but when $y = \tan^{-1} x$; taking

$x = o$, $(y) = o$, $\left(\frac{d\,y}{d\,x}\right) = 1$, $\left(\frac{d^2\,y}{d\,x^2}\right) = o$, $\left(\frac{d^3\,y}{d\,x^3}\right) = -2$,

but $y = (y) + \left(\frac{d\,y}{d\,x}\right)x + \left(\frac{d^2\,y}{d\,x^2}\right)\frac{x^2}{1.2} + \left(\frac{d^3\,y}{d\,x^3}\right)\frac{x^3}{3}$ + &c.

$\therefore y = x + \frac{x^3}{3}$ + &c.

$\therefore 4\,a = 4\,(\tan a - \frac{tan^3\,a}{3}$ + &c.)

$\therefore 45^\circ = 4\,(\frac{1}{5} - \frac{1}{3.5^3} + \frac{1}{5.5^5}$ — &c.) $- \left(\frac{1}{239} - \frac{1}{3(239)^3} + \text{\&c.}\right)$

3. $y = \frac{1 + \cos 2\pi x}{e^{2x} - 2\,ex}$ when $x = \frac{1}{2}$

$\frac{F'(x)}{f'(x)} = -\frac{\sin 2\pi x\, 2\pi}{2\,e^{2x} - 2\,e}$

$\frac{F''(x)}{f''(x)} = -\frac{\cos 2\pi x\, 4\,\pi^2}{4\,e^{2x}} = \frac{4\,\pi^2}{4\,e} = \frac{\pi^2}{e}$

4. $\frac{F(x+h)}{f(x+h)} = \frac{F\,x + \frac{d\,(F\,x)\,h}{d\,x} + \frac{d^2\,(F\,x)}{d\,x^2}\frac{h^2}{1.2}}{f\,x + \frac{d\,(f\,x)\,h}{d\,x} + \frac{d^2\,(f\,x)}{d\,x^2}\frac{h^2}{1.2}}$ + &c. + &c.

If, when x takes a particular value (a), $F(x)$ and $f(x)$ both become nothing, divide both the numerator and denominator by h, and make $h = o$; then $\frac{F(a)}{f(a)} = \frac{\frac{d\,F\,a}{d\,x}}{\frac{d\,f\,a}{d\,x}}$

When $d\,F\,x$ and $d\,f\,x$ become also nothing.

$\frac{F(a+h)}{f(a+h)} = \frac{\frac{d^2\,F\,a}{d\,x^2}\frac{h}{1.2} + \frac{d^3\,F\,a}{d\,x^3}\frac{h^2}{1.2.3}}{\frac{d^2\,f\,a}{d\,x^2}\frac{h}{1.2} + \frac{d^3\,f\,a}{d\,x^3}\frac{h^2}{1.2.3}}$ + &c. + &c.

dividing both the numerator and the denominator by $\frac{h}{1.2}$ and making $h = o$

$\frac{F(a)}{f(a)} = \frac{\frac{d^2\,F}{d\,x^2}}{\frac{d^2\,f}{d\,x^2}}$, and so forth.

When a factor that makes both the numerator and denominator nothing occurs, we expand both the numerator and denominator by

the binomial theorem, making $x = a + h$, and in the expansion take the least power of h both in the numerator and denominator. First, then, if the power of h in the numerator be greater than that in the denominator, the fraction is $= o$; when the powers of h are equal, by expunging h we will have a finite value; and when the power is greater in the denominator, the value of the fraction is infinite.

7. $(x-a)^2 + (y-\beta)^2 = r^2$ is the equation of a circle.

$\therefore 2(x-a) + 2(y-\beta)\frac{dy}{dx} = o \therefore \frac{dy}{dx} = -\frac{x-a}{y-\beta}$

$\therefore \frac{d^2y}{dx^2} = -\frac{y-\beta+(x-a)\left(\frac{x-a}{y-\beta}\right)}{(y-\beta)^2} = -\frac{r^2}{(y-\beta)^3}$ Again

$(x-a)^2 + (y-\beta)^2 = r^2$ and

$x - a = -(y-\beta)\frac{dy}{dx}$

$\therefore (x-a)^2 = (y-\beta)^2\left(\frac{dy}{dx}\right)^2$

And $\frac{d^2y}{dx^2}(y-\beta)^3 = -r^2$

$\therefore (y-\beta)^2\left(\frac{dy}{dx}\right)^2 + (y-\beta)^2 = r^2$; and we have

$\frac{d^2y}{dx^2}(y-\beta)^3 + (y-\beta)^2\left(1+\left(\frac{dy}{dx}\right)^2\right) = o$

$\therefore y - \beta = -\frac{1+\left(\frac{dy}{dx}\right)^2}{\frac{d^2y}{dx^2}}$

$\therefore x - a = \frac{1+\left(\frac{dy}{dx}\right)^2}{\frac{d^2y}{dx^2}}\frac{dy}{dx}$

therefore $r^2 = \frac{\left(1+\left(\frac{dy}{dx}\right)^2\right)^3}{\left(-\frac{d^2y}{dx^2}\right)^2}$ and $r = \frac{\left(1+\left(\frac{dy}{dx}\right)^2\right)^{\frac{3}{2}}}{-\frac{d^2y}{dx^2}}$

If now x, y be the point in the circle and X, Y in the curve, substitute X and Y for x and y in the value of r, and we will have the radius of curvature of the curve at the point X, Y.

FARDUNJI JAMSHEDJI.

Third Year's Students.

2. The centrifugal force at the equator is $F = \frac{G}{289}$. It is necessary to prove that $f = \frac{4\pi^2 r}{T^2}$.

$\because \frac{ds}{dt} = v \therefore ds^2 = v^2 dt^2$; but in a circle (fig. 2) $ds^2 = 2rx$

$\therefore$ by substitution we get $2rx = v^2 dt^2$

$\therefore x = \frac{v^2 dt^2}{2r}$, but $ds = \frac{1}{2} f dt^2$, and when we take a very small element ds, that element becomes equal to x.

$\therefore x = \frac{1}{2} f dt^2 \therefore f = \frac{2x}{dt^2}$, and by substituting for x its value equal to $\frac{v^2 dt^2}{2r}$ we get, $f = \frac{2v^2 dt^2}{2r dt^2} = \frac{v^2}{r}$, and in a circle it is equal to $\frac{4\pi^2 r}{T^2}$. The radius of the earth at the equator is 20,921,185 feet, and the time of its one revolution round its axis is equal to 86,164 seconds, therefore by substituting we get, $f = \frac{4\pi^2 20921185}{(86164)^2} = 1112259$ feet.

This is the force that obstructs the force of gravity, which is equal to 32.08818 feet at the equator. If gravity had not been obstructed by this centrifugal force, it would have received an increment of ·1112259. Now the ratio between 32·1994'059 and ·1112259 is nearly equal to 289 to 1 $\therefore f = \frac{G}{289}$.

3. $ds = \frac{1}{2} f dt^2 \therefore f = \frac{2ds}{dt^2} = \frac{2QR}{dt^2}$ (fig. 3).

Take h = twice the area of the triangle S Q P

$\therefore \triangle SQP = \frac{1}{2} h dt = \frac{SP \cdot QT}{2} \therefore dt = \frac{SP \cdot QT}{h}$;

by substituting this value in the expression for f, we get,

$f = \frac{2QR}{\frac{SP^2 \cdot QT^2}{h^2}} = \frac{2QR h^2}{SP^2 QT^2} = \frac{2h^2}{SP^2 \frac{QT^2}{QR}}$.

We want to determine $\frac{QT^2}{QR}$ in an ellipse.

$\frac{QR \cdot RR'}{RP^2} = \frac{SP \cdot SP'}{AB \cdot SB} = \frac{PP'}{AB}$ (fig. 4);

but when the point Q approaches to P, P P' becomes equal to R R'

$\therefore$ the above equation becomes equal to $\frac{Q\,R}{R\,P^2} = \frac{1}{A\,B}$

$\therefore A\,B = \frac{R\,P^2}{Q\,R}$. Multiply both the sides by $\sin^2\theta$, we get $A\,B\sin^2\theta = \frac{R\,P^2\sin^2\theta}{Q\,R} = \frac{Q\,T^2}{Q\,R}$, but which, by the property of an ellipse, is equal to $\frac{2\,b^2}{a}$ = latus rectum $\therefore$ this ratio when substituted in the formula

$f = \frac{2\,h^2}{S\,P^2\,\frac{Q\,T^2}{Q\,R}}$, we get $f = \frac{2\,h^2}{S\,P^2\,\frac{2\,b^2}{a}} = \frac{a\,h^2}{b^2\,S\,P^2}$.

The force is inversely as the square of the distance.

5. Now the compression is equal to $c = \frac{a-b}{a}$ and

$e^2 = \frac{a^2-b^2}{a^2} = \frac{a+b}{a}\cdot\frac{a-b}{a} = c\,(2-c)$, but c being a very small fraction we can consider its square as nothing, $\therefore e^2 = 2\,c$. $c = \frac{1}{2}e^2$, and $N = \frac{b^2}{a}\frac{1}{(1-e^2\sin^2\lambda)^{\frac{1}{2}}}$, $N' = \frac{b^2}{a}\frac{1}{(1-e^2\sin^2\lambda')^{\frac{1}{2}}}$

$l : l' :: (1-e^2\sin^2\lambda)^{-\frac{1}{2}} : (1-e^2\sin^2\lambda')^{-\frac{1}{2}}$; expanding this by the binomial theorem $l : l' :: 1 + \frac{1}{2}e^2\sin^2\lambda : 1 + \frac{1}{2}e^2\sin^2\lambda'$; and substituting c for $\frac{1}{2}e^2$, we get $l : l' :: 1 + c\sin^2\lambda : 1 + c\sin^2\lambda'$;

therefore $c = \frac{l'-l}{l\sin^2\lambda' - l'\sin^2\lambda}$. $C + c = \frac{5\,m}{2}$

and $M = \frac{1}{289}$, $\therefore c = \frac{5}{2\times 289} - \frac{l'-l}{l\sin^2\lambda' - l'\sin^2\lambda}$.

NARAYAN BALAL.

Fourth Year's Students.

2. E F (fig. 5) is a rectangular box, having a tube A at one of its sides G. To the end of the tube, a plano-convex lens is attached. C is a mirror, inclined at the angle of 45° to the axis of the lens; D is a lid, which is made so as to open and shut upon a hinge, and the use of which is to shut the light from coming to L. Under it is a plate of glass $e\,f\,g$. If we place an object B before the lens, or the lens be directed to any external object, an image of that object will be formed on the glass plate $e\,f\,g$, where it can be depicted on a paper. From the reflection of the several parts of

the object B, it will be seen that the image on the horizontal glass will be, to the person whose face is turned towards the object, uninverted, but the sides will be changed. If the mirror be placed with its face inclined downwards, and the image formed on the lower lid, it will be seen even in all its parts by the person who has his back turned towards the object. This instrument is used in taking down images.

3. Let P (fig. 6) be the pole, S the position of the sun before noon. P Z is the co-latitude, P S the co-declination, and Z S the zenith distance. Let P Z S = A, and let the values of A and δ be A′ and δ' at the second observation, δ being the declination. Then $\cos A = \frac{\sin \delta - \sin l \cos Z}{\cos l \sin Z}$ or

$$\sin \tfrac{1}{2}(A + A') \sin \tfrac{1}{2}(A - A') = \frac{\sin \tfrac{1}{2}(\delta' - \delta \cos \tfrac{1}{2}(\delta' + \delta)}{\cos l \sin Z};$$

now let Δ be the declination at noon, and Δ' at the preceding noon, $24 + x$ the siderial time between two noons, and t the time between the two observations.

$\therefore 24 + x : t :: \Delta - \Delta' : \delta' - \delta$ nearly, and $\delta' + \delta = 2\Delta$ nearly;

therefore $\frac{1}{2}(A - A') = \frac{1}{2} \frac{t(\Delta - \Delta')}{24 + x} \cdot \frac{\cos \Delta}{\cos l \sin Z \sin \frac{1}{2}(A' + A)}$;

knowing the difference of A and A′, and all the terms on the right side of the equation, we can correct for the difference of declination.

4. Let P (fig. 7) be the pole; S and S′ the two positions of the sun; Z, Z′ the two zenith distances; Δ, Δ' the co-declinations; and a the angle formed at the pole by lines drawn from the two positions of the sun.

From the equation $\frac{a}{360°} = \frac{\text{time between two observations}}{\text{time between two noons}}$

we can find the angle a, supposing declination to be constant for the short period, and

$$\tan \tfrac{1}{2}(P S S' + P S' S) = \frac{\cos \tfrac{1}{2}(\Delta' - \Delta)}{\cos \tfrac{1}{2}(\Delta' + \Delta)} \cot \frac{a}{2}, \text{ and}$$

$$\tan \tfrac{1}{2}(P S S' - P S' S = \frac{\sin \tfrac{1}{2}(\Delta' - \Delta)}{\sin \tfrac{1}{2}(\Delta' + \Delta)} \cot \frac{a}{2}$$

therefore $P S S' = \frac{1}{2}(P S S' + P S' S) + \frac{1}{2}(P S S' - P S' S)$; and knowing the angles a and P S S′ we know the side θ from

$\sin \theta = \frac{\sin \Delta' \sin a}{\sin P S S'}$. Now in the triangle Z S S′,

$\sin \frac{1}{2} Z S S' = \sqrt{\frac{\sin \frac{1}{2} (Z' + Z - \theta) \sin \frac{1}{2} (Z' + \theta - Z)}{\sin Z \sin \theta}}$. The angle $P S Z = P S S' - Z S S'$, and therefore it is known. Now $\cos P Z$ or $\sin l = \sin \Delta \sin Z \cos P S Z + \cos \Delta \cos Z$, and therefore the latitude is known; also the hour angle from the equation

$$\sin Z P S = \frac{\sin P S Z \sin Z}{\sin Z P}$$

8. Parallax is the angle subtended at a heavenly body by the earth's radius. Let E (fig. 8) be the earth, T its centre, O a point on earth, S a heavenly body, and K the zenith of O; join O and T with S. If we observe the body from the point O, it appears in the part b of the heavens; but if it were observed from T, it would have appeared in part a. Now it has been found that the observed and calculated position of some of the heavenly bodies does not correspond; the body appears lowered by the angle $a S b$ or O S T, which is the angle the radius subtends at the body. The fixed stars, on account of their immense distances, have no parallax.

The sine of the angle $a S b$ or O S T : sin S O T :: O T : T S

$\therefore$ sin parallax, or $O S T = \frac{\sin S O T \cdot O T}{T S}$. When the body is in the horizon, $\sin S O T = 1$, and $\sin O S T = \frac{O T}{T S}$; now observing the moon from different latitudes we find that this $\frac{T O}{T S}$ varies, and in higher latitudes the radius T O appears less; therefore the earth must be flattened towards the poles.

9. Refraction is the term applied to the bending of the rays of light passing from one medium to another. Suppose a ray of light proceed from a luminous body $S_{,}$ (fig. 9) to the earth E; as long as it is out of the atmospheric strata, it passes in a straight line; but when it enters S″, it is bent towards the perpendicular to the surface of the atmosphere at the point where it enters it. When it enters a denser medium S′, it again bends; and this successive bending in the case of the consecutive atmospheric strata causes it to assume a curved form; so that instead of its going from $S_{,}$ to T in a straight line, it is bent, and meets the earth at E. To the person at E the body $S_{,}$ appears in the direction E $S_{,,}$ which is tangent to the curve at E, or the body is raised above its true place

Fig. 1.

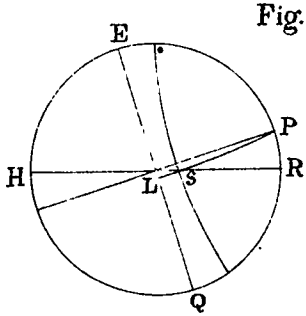


Fig. 2.

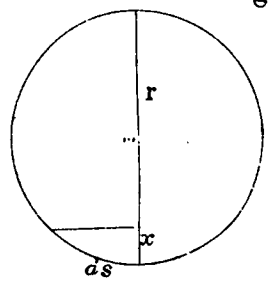


Fig. 3.

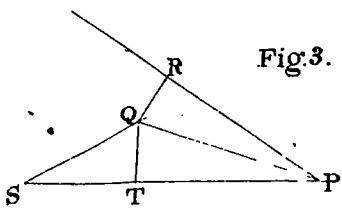


Fig. 4.

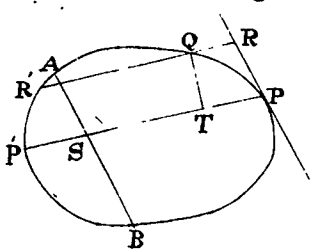


Fig. 5.

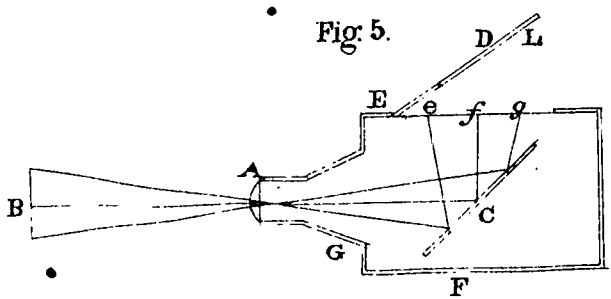


Fig. 6

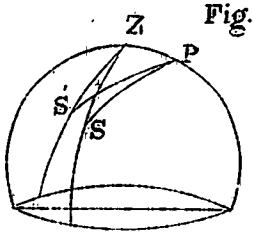


Fig. 7.

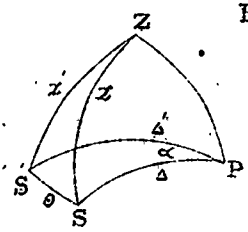


Fig. 8.

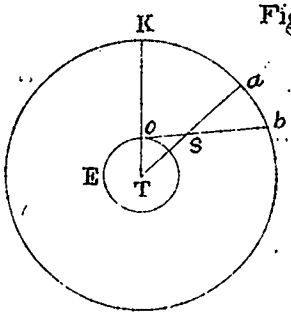


Fig. 9.

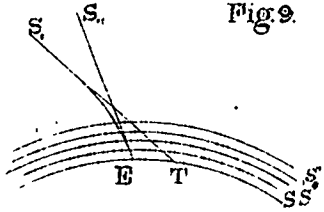
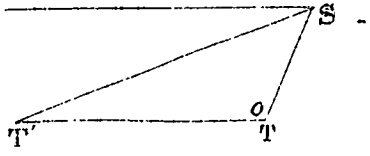


Fig. 10.



by refraction. Refraction is greater near the horizon than at the zenith. When the sun or moon is just rising or setting, its vertical diameter appears to be less than its horizontal one by 4′, so that at the horizon the refraction is 4′ for 32′ of altitude, which is the apparent diameter of the sun at the horizon. Again solar light while it passes from below the horizon through the atmosphere is, by refraction, bent; and this refraction, together with reflection, illumines the dark part of the earth's surface, and causes twilight at every sunrise and sunset, till the sun is 18° below the horizon. I have spoken about parallax while answering the fourth question. Parallax, unlike refraction, depresses the body ; it also lessens the apparent diameter of a body at the horizon, on account of the increased distance ; but the increment being far less in proportion to the increment in the distance of other heavenly bodies, the diameter appears rather magnified than lessened.

Aberration is the error caused in the position of a heavenly body on account of light not coming instantaneously from it. Let a body O (fig. 10) be moving in the direction T′ T, and let S be a heavenly body. If the time of the rays arriving at T from S be equal to the time the body requires to go from T′ to T, the body O will receive, when it just arrives at T from T′, rays that emanated in the direction S T. If a long tube be taken and directed towards S from T′, the ray from S in the direction S T entering it will always be in the axis of the tube, the other rays will be destroyed from striking against its sides, and the body will appear in the direction parallel to S T′, although the body S was not so much removed from the zenith when the ray just entered the tube. The angle T S T′ is called the aberration, and we see that it elevates the heavenly body when we go away from it, and depresses when we go towards it.

NARAYAN BHAI.

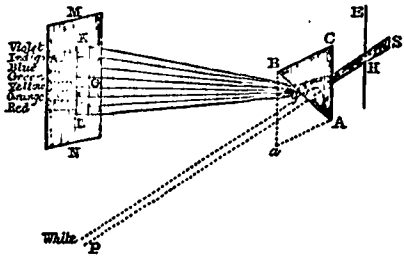
CHEMISTRY.

First Year's Students.

1. The sun's rays are accompanied with three principal forces; 1*st*, The luminous rays, which bear light; 2*nd*, The calorific rays,

or those which are accompanied with heat; *3rd*, The chemical rays, which possess chemical properties. The calorific rays are found to increase towards the red part of the spectrum, and the chemical towards the violet, or beyond it.

If we allow a ray of light to pass through a small hole in a dark room, and to be intercepted by a prism, the ray will be found to have undergone decomposition; for on placing a white screen behind the prism, it will represent seven different colours on it.

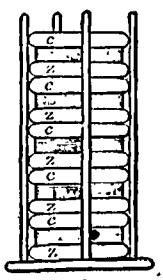


The primary colours are three—blue, yellow, and red. The other four are formed by the combination of primary ones. Now if we pass the ray, thus decomposed, through another prism, the several colours will be found to have combined to form one white ray. Thus we see that a ray of light is compounded of seven different colours.

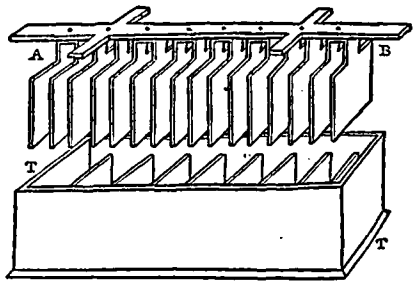
EDALJI SHAPURJI.

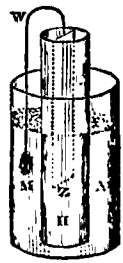
Fourth Year's Students.

1. In a voltaic battery electricity is generated by the action of some acid upon an oxidizable metal, as for instance, zinc or iron; and the slightest action upon the metal acted upon is sufficient to produce the current. The simplest instrument for generating galvanic electricity is the voltaic pile, which consists of plates of zinc and copper arranged in alternate layers, and each pair of the two metals is separated by a piece of cloth moistened either with water or dilute sulphuric acid. The current of electricity is immediately set in motion from the zinc plate to the copper. This simple instru-



ment has been variously modified. In Wollaston's battery these plates are fastened by a wooden frame-work, and made to fit in a trough, which at the time of working is filled with nitric acid. Daniell made the outer cell itself of copper, within which a porous earthen tube containing dilute sulphuric acid is inserted, and in the latter a rod of zinc is placed. The space between the metallic cell and the porous tube is filled with solution of sulphate of copper, and the communication takes place through the porous tube. Smee has contrived an ingenious instrument, just in the form of Volta's Crown Cup. In the crown cup only one plate of each metal is used, while in the Smee's cell there [are] two zinc plates; and instead of the copper plate, a silver plate platinized, in order to prevent the adhesion of hydrogen, is placed. The current of electricity passes from the metal that is acted upon to that which is not; so that in the case of Smee's battery the current of electricity within the generating cell is from zinc to silver, and out of the cell, or in the decomposing cell, if one is used, from the wire fixed to the silver plate towards that attached to the zinc plate. It has been found by experiment that the electricity produced, or the decomposition effected by it in the decomposing cell, is in proportion to the hydrogen evolved or the zinc oxidized in the generating cell; and on this principle several cells or plates are used in order to increase either the quantity or intensity of the electricity. If greater quantity is required, all the similar plates or those of the same metal are connected together; and if greater intensity is required, dissimilar plates are connected in alternation.





NARAYAN BHAI.

APPENDIX F.

List of Students on the 1st of January 1852, with the subsequent Changes.

Class.	Scholarship	Salary.	No.	Names of Students.	Remarks.
		Rs.			
Fourth Year's.	1st Normal.	30	1	Vishvanath Narayan.....	Appointed Clerk in the Political Agent's Office at Cutch Bhooj, on a salary of Rs. 110, November 1852.
			2	Bamanji Edalji	Entered a Merchant's Office in China, May 1852.
	2nd Normal	20	1	Narayan Vishnu.....	Appointed Teacher in the Sirdar's College at Belgaum, on a salary of Rs. 100, June 1852.
			2	Narayan Bhai	Obtained a 1st Normal Scholarship, January 1853.
Third Year's.			3	Edalji Nanabhai	Appointed an Assistant Master in the Fort Branch School, July 1852.
	West.	15	1	Khurshedji Manekji	Appointed an Assistant Master in the Elphinstone Institution, July 1852.
			2	Pestanji Jahanghirji	Obtained 1st Normal Scholarships, in January 1853.
			3	Hormazji Edalji.....	
			4	Maneksha Beramji	Appointed Assistant Master in Mumbadevi Branch School July 1852.
			5	Khanderao Moroji.....	Articled Clerk to R. A. Dallas, Esq., L. L. D., S. S. C., January 1853.
			6	Narayan Balal	Obtained 2nd Normal Scholarships, January 1853.
Year's.			7	Balcrishna Sadashiva	
			8	Fardunji Jamshedji	
			9	Kahandas Tapidas.....	Joined the Third Year's Class, in January 1853.
			10	Mukandrao Bhaskar.....	Appointed an Interpreter in the Small Cause Court, March 1852.

SECOND			1	Bhairaonath Mangesh	Obtained 2nd Normal Scholarships, January 1853.
			2	Harishankar Balcrishna	
			3	Telakchand Manekchand	Obtained West Scholarships, and joined the 3rd Year's Class, January 1853.
			4	Mahadaji Vasudeva	
			5	Jahanghirji Rustamji	Obtained a 2nd Normal Scholarship, January 1853.
			6	Kashinath Vithoba	Appointed Judge's Clerk in the Small Cause Court, October 1852.
			7	Ganpat Madanji.....	Obtained West Scholarships, and joined Third Year's Class, January 1853.
			8	Naorozji Beramji	
			9	Mancherji Mervanji	
			10	Govind Vishnu	Appointed an Assistant Master, Elphinstone Institution.
FIRST YEAR'S.	Clare.	10	11	Ganesh Dhondeo	Obtained West Scholarships, January 1853.
			12	Edalji Shapurji	
			13	Dwarkanath Jagannath.....	Joined Second Year's Class, January 1853.
			14	Ganpatrao Bhaskarji.....	
			15	Parbhuram Navalram	
			16	Dadabhai Mancherji	
			17	Parasharam Vishnu	Obtained West Scholarships, January 1853.
			18	Somnarayan Nandnarayan	
			19	Nilkanth Mahadeo.....	Joined Second Year's Class, January 1853.
			20	Ramkrishna Narayan	
			21	Darasha Dorabji	
	Free Students.	..	1	Bezanji Rustamji	Enrolled as a Student in the Grant Medical College, June 1853.
		..	2	Pandurang Balibadra	Obtained a West Scholarship, January 1853.
		..	3	Dadabhai Rustamji	Enrolled as a Student in the Grant Medical College, June 1852.
		..	4	Moroba Sundarji	Obtained Clare Scholarships, and joined Second Year's Class, January 1853.
		..	5	Harichand Antoba.....	
		..	6	Namdeva Narayan.....	Appointed an Assistant Master in Mumbadevi Branch School.
		..	7	Motiram Bhagubhai	Appointed Vernacular Master in the Parsi Panchayat School.
		..	8	Khurshedji Framji.....	Enrolled as a Student in the Grant Medical College.
		..	9	Sorabji Rustamji	Obtained a Clare Scholarship, and joined the Second Year's Class, January 1853.
		..	10	Motilal Jivandas	Obtained a West Scholarship, January 1853.
		..	11	Mahipatram Ruparam	Obtained a Clare Scholarship, and joined the Second Year's Class, January 1853.

Class.	Scholarship	Salary.	No.	Names of Students.	Remarks.
First Year's.	Paying Students.	..	12	Ramchandra Ganpat.....	Joined the Third Year's Class, formed January 1853.
		..	13	Vinayakrao Jagannath	
		..	14	Sakharam Govindji	Joined the Second Year's Class, formed January 1853.
		..	15	Raghunath Ganpat	
		..	16	Harichand Withoba	Obtained Clare Scholarships, and joined the Second Year's Class, January 1853.
		..	17	Kavazji Nushirvanji	
		..	18	Nanabhai Pandurang.....	Joined the Second Year's Class, formed January 1853.
		..	19	Henry Stevens	
		..	20	Ganpatrao Moroji	Joined the First Year's Class, formed January 1853.
		..	21	Vinayaka Krishna.....	
		..	22	Bapuji Vithoba	Writer in the Secretariate.
		..	23	Babaji Bhagvantrao	Engaged in Trade.
		..	24	Sorabji Kavazji	Employed in a Merchant's Office.

APPENDIX No. XIX.

ANNUAL REPORT

OF THE

GRANT MEDICAL COLLEGE,

FOR 1852-53.

ANNUAL REPORT

OF THE

GRANT MEDICAL COLLEGE,

BOMBAY.

SEVENTH YEAR.—SESSION 1852-53.

Bombay:
PRINTED AT THE
BOMBAY EDUCATION SOCIETY'S PRESS.

1853.

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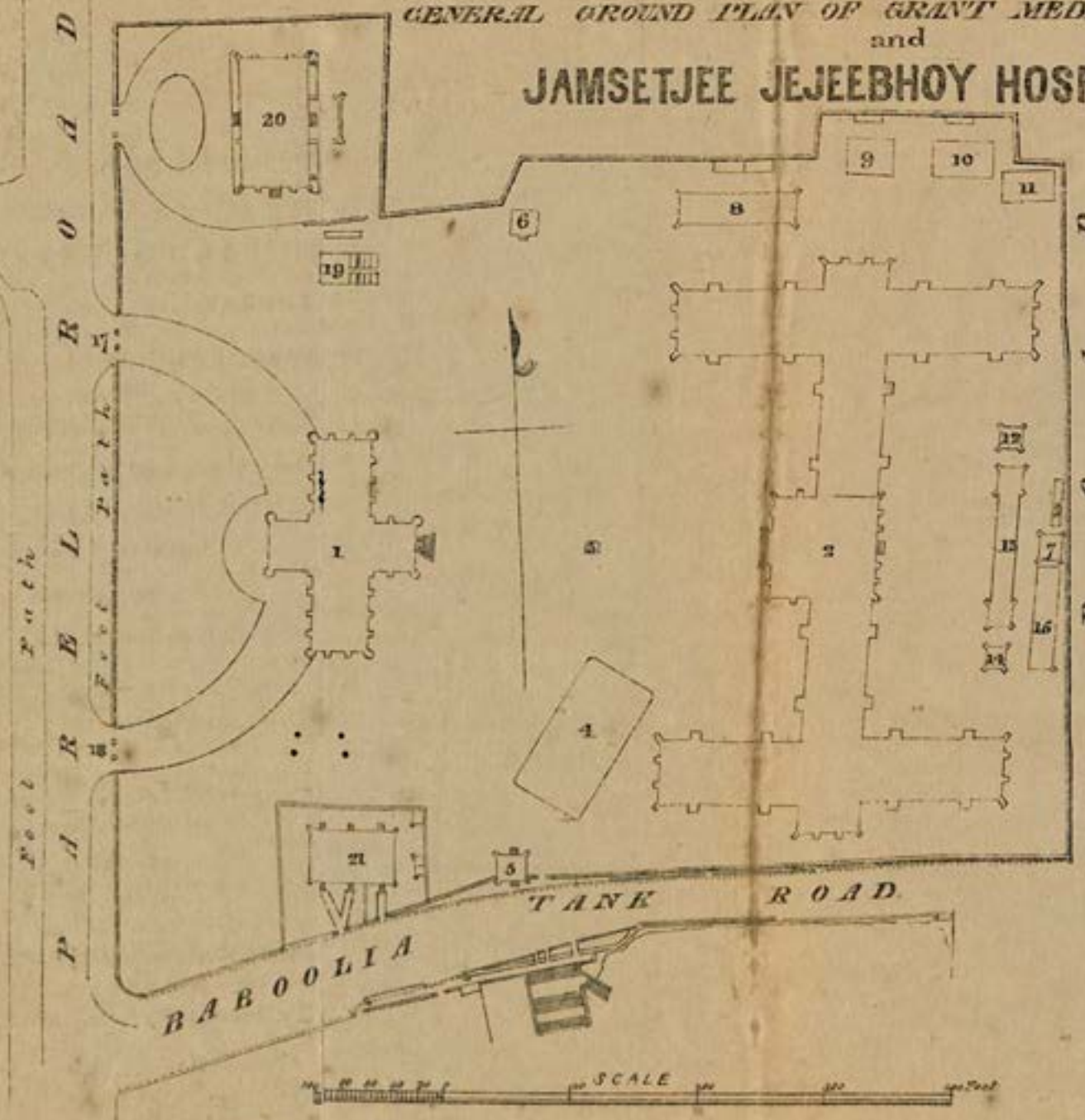
GENERAL GROUND PLAN OF GRANT MEDICAL COLLEGE
and
JAMSETJEE JEJEEBHOY HOSPITAL &c.



REFERENCES

1. Medical College
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4. Tank
5. Hospital Guard room and Entrance
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9. Apprentices' Quarters
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ANNUAL REPORT

OF THE

GRANT MEDICAL COLLEGE,

BOMBAY.

SEVENTH YEAR.—SESSION 1852-53.

ESTABLISHMENT OF PROFESSORS DURING THE SESSION.

Principal, and Professor of the Institutes and Practice of Medicine	C. MOREHEAD, M.D.
Professor of Anatomy and Surgery	J. PEET, Esq. (Absent on sick certificate.)
Acting ditto	G. R. BALLINGALL, M.D.
Professor of Chemistry and Materia Medica	H. GIRAUD, M.D. (Absent on sick certificate.) Returned Jan. 1st 1853.
Acting ditto	R. HAINES, M.B.
Professor of Midwifery	R. PEELE, Esq. (Absent on sick certificate.)
Acting ditto	W. C. COLES, M.D.
Professor of Medical Jurisprudence.....	W. C. COLES, M.D.
Curator of the Museum	J. F. WATSON, A.M., M.D.

Opening of the Session.

1. THE Seventh Session of the College was opened on the 15th of June 1852. The Introductory Lecture on the

occasion was delivered by Mr. Haines, the Officiating Professor of Chemistry and Materia Medica.

Changes in the Professors.

2. In the month of December, Dr. Giraud returned to Bombay, and Mr. Haines resigned the duties in the College, which he had conducted with much ability and assiduity during Dr. Giraud's absence. The duties of Principal of the College were carried on by Dr. Giraud, and those of Professor of the Institutes and Practice of Medicine by Dr. Watson, during my absence on leave, from the 16th December to 18th March.

Attendance of Students.

3. Twenty-two Students, sixteen Student Apprentices, and twelve Warrant Medical Officers and Hospital Assistants, have attended the College during the Session.

Lectures.

4. The Lectures on Anatomy, Chemistry, Physiology, Materia Medica, Medicine, Surgery, Midwifery, and Medical Jurisprudence; also practical instruction in the Medical and Surgical Wards, in the Dispensaries for male and female outpatients, and in the Eye Dispensary, have, with the exceptions hereafter noticed, been conducted in the manner already fully explained in former Reports.

Practical Chemistry.

5. In former Sessions, the First and Second Year Students were instructed in Practical Chemistry, and the Third Year Students ceased to study this subject. During the past Session, the First and Second Year Students have attended the Lectures as heretofore, but the Second and Third Year Students the practical course. This modified arrangement has been found useful, for the First Year Student in Chemistry is hardly sufficiently advanced to

derive much benefit from the practical Course, and the attention of the Professor is more advantageously applied in increasing the practical acquirements of the Third Year Students.

Materia Medica.

6. The unsatisfactory appearance made by the Students in Materia Medica was noticed in my two last Reports. This defect has not been observed in the Examinations which have just terminated. The Second Year Students—those who had studied Materia Medica for the first time—were found to be well qualified in this branch of their studies, a result which may in part be attributed to the improved arrangements made for the exhibition of the articles of the Materia Medica, but which, I am satisfied, has been chiefly due to the industry and regularity with which this Class has been examined by Mr. Carvalho,—a duty which he has discharged in addition to that of examining the First Year Students in Chemistry.

Practical Pharmacy.

7. Importance continues to be attached to the thorough instruction of the Students during their first and second years, in the operations of Practical Pharmacy, in the preparation of prescriptions, and the details of compounding medicines and dispensing them to the sick. But the arrangements have not as yet assumed that systematic form of which they are susceptible, and to which they may be brought, when the suggestions made in former Reports, for the completion of the establishment of the College, have been carried into effect.

Physiology.

8. During the period that Dr. Watson had charge of the Physiological Class, much attention was given to the use

of the Microscope in illustrating the characteristic peculiarities of the different vegetable and animal tissues.

Clinical Surgery.

9. The weekly hour allotted for the College Lecture on Clinical Surgery has, during this Session, been appropriated for the performance of the hospital Surgical operations. Those of importance were performed by the Professor, in the presence of the Students, while those of minor consequence were entrusted to the Surgical Dressers, who conducted their proceedings in the presence of the Professor and of the Students. The opportunity was also taken of making the observations on Practical Surgery which the operations of the day were calculated to suggest.

Midwifery.

10. The course of Lectures on Midwifery has been somewhat extended. Fifty-eight Lectures have been delivered in accordance with the memorandum entered in Appendix L, and twenty-nine Examinations have been held.

Lying-in Hospital.

11. The Lying-in Hospital has been completed, and opened for the reception of Patients and the instruction of the Students in Midwifery. The building is well suited in all respects for the purpose for which it is intended, and I trust to be able, before long, to report that the arrangements and management have secured for the Institution the confidence of those classes of the community for whose benefit it was established.

Anatomical Museum.

12. Some delay has been experienced in carrying out plans for the classification and extension of the Anatomical Museum, but the Curator reports that the arrangements are in progress.

13. In my last Report, I explained the objects and the importance of the Grant College Medical Society, and I have much satisfaction in being able to state that its proceedings have, during the Session, been conducted with much spirit, under the able management of Dr. Coles, as President, and Mr. Carvalho, as Secretary. Dr. Watson has also contributed much to the interest and instruction of the meetings by a series of Microscope demonstrations.

Grant College Medical Society.

14. Ten Students presented themselves for "First Examination" Certificates. Of these, eight were found qualified, viz. Nusserwanjee Bomanjee, Ardaseer Jamsetjee, Shamrao Narrayen, Balcrustna Succaram, Balla Gopall, Moreshwer Junardun, Rustomjee Merwanjee, and M. A. Misquita.

Diploma Examinations.

15. The final Examination was conducted by Dr. McLennan, the Government Examiner, Mr. Stovell, Dr. Arbuckle, and Dr. Campbell, Government Assessors. Six Candidates presented themselves for examination; of these, the following three were found qualified for the Diploma of Graduate:—

Rustomjee Byramjee.
Ardaseer Jamsetjee.
Nusserwanjee Bomanjee.

16. Scholarships have been awarded to the following Students:—Ruttonjee Hormusjee, Balla Gopall, Rustomjee Merwanjee, M. Continho, Burjorjee Ardaseer, Cooverjee Dorabjee, Cursetjee Framjee, Cawasjee Nowrojee,

Award of Scholarships.

and Bazunjee Rustomjee. The Sir Jamsetjee Jejeebhoy Medical Prize to Rustomjee Byramjee.

Warrant Medical Officers examined.

17. Nine Warrant Medical Officers and Hospital Assistants presented themselves for examination. To six of these, Certificates of qualification for promotion to the grade of Apothecary has been granted, viz :—

Mr. H. Webb, } Hospital Stewards.
Mr. T. Blaney, }

Tatia Mahadowjee, }
Mr. G. Sinclair, } Assistant Apothecaries.
Mr. W. Conway, }

Bhow Ramjee, 2nd Hospital Assistant.

Mr. Webb has been for some time back attached to the Artillery Hospital at Ahmednuggur, and has not had the opportunity of attending any of the College Classes. Yet the appearance made by him before the Examiners was highly creditable, and in every respect satisfactory.

Student Apprentices.

18. Two Student Apprentices were examined for Certificates of qualification. Edward Cook was successful, and the Burnes Medal has also been awarded to him.

Physician General's Prizes.

19. At the opening of the Session, three Prizes were placed at the disposal of the College, by the Physician General, for the encouragement and reward of the most proficient First and Second Year Student Apprentices, and the best candidate for admission. One of these Prizes has been gained by Patrick Drumm, and two by Henry Washington.

20. The Willoughby Prize, open for competition to the Graduates of the College, was to have been awarded in the present month. It is with great regret that I report that no competitors for this Prize have appeared.

Willoughby Prize.

21. The usual Appendices, embodying all important details relative to the proceeding of the Session, are annexed to the Report.

Appendices.

C. MOREHEAD,

Principal, Grant Medical College.

Bombay, April 1853.

APPENDICES

TO THE

ANNUAL REPORT OF THE GRANT MEDICAL COLLEGE.

SEVENTH YEAR.—SESSION 1852-53.

APPENDIX A.

List of Candidates for admission as Students into the Grant Medical College, with the Result of the Examination held on the 30th April 1852.

No.	Names.	Caste.	School where Educated.	Qualified or not.	Remarks.
1	Dadabhoy Rustomjee ..	Parsee	Elphinstone Institution	Qualified.	
2	Bazunjee Rustomjee	Do.	Ditto.	Ditto.	
3	Crishnarao Chapajee	Purbhoo	Surat English School	Ditto.	Did not join.
4	Baba Pudmonjee.....	Kasar	Free Church Institution.....	Ditto.	
5	Dadabhoy Muncherjee ..	Parsee	Elphinstone Institution	Ditto.	Did not join.
6	Cawasjee Nowrojee.....	Do.	Parsee B. Institution	Ditto.	
7	Rajaram Ootumram	Nagur Brahmin..	Surat English School	Ditto.	Did not join.
8	Narrayen Rugoonath ..	Purbhoo	Money Institution	Ditto.	Do.
9	Dhunjebhoy Dorabjee....	Parsee	Surat English School	Ditto.	Do.
10	Rustomjee Pestonjee ..	Do.	Parsee B. Institution	Ditto.	Do.
11	Cursetjee Framjee	Do.	Elphinstone Institution	Ditto.	
12	Succaram Luxumon	Bundary	Money Institution	Ditto.	Did not join.
13	Pestonjee Shapoorjee	Parsee	Elphinstone Institution	Not Qualified.	
14	Carapet Mescop	Armenian.....	Indo B. Institution.....	Ditto.	
15	Peter S. D. Souza	Portuguese	Money Institution	Ditto.	
16	Rugoonath Hurjeewan ..	Khutree	Free Church Institution.....	Ditto.	
17	W. Falkner.....	European.....	Mr. Boswell's School	Ditto.	
18	J. Rodrigues	Portuguese	General Assembly's Institution.	Ditto.	
19	Nicholas Fernandez.....	Do.	Mr. A. T. Thornton's School...	Ditto.	

C. MOREHEAD,
Principal, Grant Medical College.

APPENDIX B.

List of Students in Attendance in the Grant Medical College during the Session 1852-53.

No.	NAMES.	Caste.	Age on Admission.	Native Town.	In what School educated.	Date of Admission.	Remarks.
	Free.						
1	Nusserwanjee Bomanjee	Parsee	16	Bombay.	Elphinstone Institution..	15th June 1846.	Now a Graduate.
2	Ardaseer Jamsetjee	Do	17	Do ..	Ditto ..	Ditto.	Do. do.
3	Shamrao Narayen	Purbhoo	16	Do ..	Ditto ..	15th June 1847.	
4	Balkrishna Sukharam.....	Pulsya	16	Do ..	Ditto ..	15th June 1848.	
5	Moreshwar Junardun	Do	16	Do ..	Ditto ..	15th June 1849.	
6	Hector Summers	Anglo-Indian .	16	Do ..	Free Church Institution .	Ditto.	Withdrawn.
7	Henry Horne	Portuguese ..	16	Do ..	Mr. Boswell's School....	15th June 1850.	
8	Bartholomew Vas	Do	17	Do ..	Free Church Institution .	15th June 1851.	
9	Christian W. Klein Knecht .	German	18	Germany	Mr. Money's School	Ditto.	Withdrawn.
	Stipendiary.						
10	Rustomjee Byramjee	Parsee	16	Bombay.	Surat G. E. School	15th June 1848.	Do. do.
11	Palonjee Pestonjee	Parsee	17	Do ..	Elphinstone Institution..	15th June 1848.	
12	Ruttonjee Hormasjee	Do	18	Surat ..	Surat G. E. School	15th June 1849.	

No.	Names.	Caste.	Age on Admission.	Native Town.	In what School educated.	Date of Admission.	Remarks.
13	Balla Gopall	Brahmin Convert ..	18	Poona ..	Free Church Institution .	15th June 1849.	
14	M. A. Misquitta	Portuguese ..	19	Bombay .	Elphinstone Institution..	15th June 1850.	
15	Hormasjee Bazunjee	Parsee	18	Do ..	Ditto ..	Ditto.	
16	Rustomjee Morwanjee.....	Do	19	Do ..	Ditto ..	Ditto.	
17	Deerujram Dulputram	Kayust	19	Surat ..	Surat G. E. School	15th June 1851.	
18	Angelino De Souza	Portuguese ..	19	Bombay .	Elphinstone Institution..	Ditto.	
19	Antonio M. C. Continho ..	Do	19	Goa	Free Church Institution .	Ditto.	
20	Cooverjee Dorabjee	Parsee	18	Bombay .	Elphinstone Institution..	Ditto.	
21	Burjorjee Ardaseer	Do	16	Do ..	Ditto ..	Ditto.	
22	Dadabhai Rustomjee	Do	18	Do ..	Ditto ..	15th June 1852.	Resigned.
23	Bazonjee Rustomjee	Do	18	Do ..	Ditto ..	Ditto.	
24	Cursetjee Framjee	Do	16	Do ..	Ditto ..	Ditto.	
25	Cowasjee Nowrojée	Do	19	Do ..	Parsee B. Institution....	Ditto.	
26	Baba Pudmanjee.....	Kasar.....	20	Do ..	Free Church Institution .	Ditto.	Resigned.

C. Morehead,
Principal, Grant Medical College.

APPENDIX C.

GRANT MEDICAL COLLEGE.

SESSION 1852-53.

SUMMER TERM.

From 15th June to 1st November.

LECTURES.

On Tuesday, the 15th June, the Introductory Lecture will be delivered by Mr. R. Haines, at 12 o'clock.

ANATOMY. *Dr. G. Ballingall*	Monday, Wednesday, Saturday	at 1 P. M.
CHEMISTRY. *Mr. R. Haines*	Tuesday, Thursday	at 12 o'clock.
PHYSIOLOGY AND GENERAL ANATOMY. **Dr. J. F. Watson*	Tuesday, Thursday, Saturday	at 2 P. M.
MATERIA MEDICA AND BOTANY. *Mr. R. Haines*	Monday, Wednesday	at 12 o'clock.
PRINCIPLES AND PRACTICE OF MEDICINE. *Dr. C. Morehead*	Monday, Wednesday, Friday	at 2 P. M.
SURGERY. *Dr. G. Ballingall*	Tuesday, Friday	at 1 P. M.
MIDWIFERY. *Dr. W. C. Coles*	Tuesday, Thursday	at 3 P. M.

* Dr. Watson was unable, from ill health, to conduct this course. Lectures on Physiology were delivered by Dr. Morehead, as in Session 1851-52.

MEDICAL JURISPRUDENCE. *Dr. W. C. Coles*	Monday .... Wednesday ..	at 3 P. M.
CLINICAL SURGERY. *Dr. G. Ballingall*	Thursday	at 11 A. M.
CLINICAL MEDICINE. *Dr. C. Morehead*	Tuesday	at 11 A. M.
PRACTICAL CHEMISTRY. *Mr. R. Haines*	Friday	at 12 o'clock.

HOSPITAL ATTENDANCE.

Clinical Medical Ward	Daily, at 7 A. M.
Clinical Surgical Ward	Daily, at 8 A. M.
Clinical Midwifery Wards, and Dispensary for Women and Children	Daily, at 4 P. M.
Dispensary Practice	Daily, at 8 A. M.

The 1st and 2nd Year Students will attend the Hospital daily, at 7 A. M. in rotation, for periods of two months, and will be engaged in compounding and dispensing Medicines.

EXAMINATIONS.

ANATOMY	Thursday, at 1 P. M.
CHEMISTRY	Saturday, at 11 A. M.
MATERIA MEDICA	Saturday, at 3 P. M.
PHYSIOLOGY	Wednesday, at 11 A. M.
SURGERY	Saturday, at 12 o'clock.
MEDICINE	Thursday, at 12 o'clock. Saturday, at 11 A. M.
MEDICAL JURISPRUDENCE	Friday, at 3 P. M.
MIDWIFERY	Saturday, at 3 P. M.

In addition to the regular Examinations in *Anatomy, Chemistry*, and *Materia Medica*, by the Professors, Examinations will be held in *Chemistry*, at 11 A. M., on Mondays, Wednesdays, and Fridays; in *Materia Medica*, at 11 A. M., on Tuesdays and Thursdays; and in *Anatomy*, at 3 P. M., on Mondays, Tuesdays, Thursdays, and Saturdays.

During the hours when not engaged in the Lecture-room, the Students will be occupied in reading and note-taking in the Reading-room.

WINTER TERM.

From 1st November to 15th March.

The Lectures and Examinations will be on the same days and hours as during the *Summer Term.*

PRACTICAL ANATOMY.

The Dissecting Season will be from the 1st November to the 15th of March, and the Professor of Anatomy will, at its commencement, lay down rules relative to the hours of attendance of the different Classes of Students.

ROLL-CALLS.

The College hours are from 10 A. M. to 4 P. M. A Roll-call will take place before the commencement of each Lecture and Examination, as well as in the Clinical Wards.

WRITTEN EXERCISES.

Questions on the several subjects of study will be proposed to the Students; the answers to be written by them when most convenient, and to be delivered to the respective Professors on the succeeding Tuesday.

1st Year Students.

WEDNESDAY...	Chemistry.
FRIDAY	Anatomy.

2nd Year Students.

1ST FRIDAY	Anatomy.
2ND FRIDAY	Chemistry.
3RD FRIDAY	Physiology.
4TH FRIDAY	Materia Medica.

3rd Year Students.

1ST AND 3RD FRIDAY	Physiology.
2ND AND 4TH FRIDAY....	Materia Medica.

4th Year Students.

1ST AND 3RD FRIDAY.... Surgery.
2ND AND 4TH FRIDAY..... Medicine.

5th Year Students.

1ST AND 3RD FRIDAY.... Midwifery.
2ND AND 4TH FRIDAY.... Medical Jurisprudence.

A register of the relative merits of these Exercises will be regularly kept by the several Professors, and the results considered at the award of Scholarships and Prizes.

From the 15th March to the 15th April the Examinations for Diplomas, Honors, and the classification of the Students, will be held.

Order of the Lectures and Examinations during the day.

	11 to 12 A. M.	12 to 1 P. M.	1 to 2 P. M.	2 to 3 P. M.	3 to 4 P. M.
MONDAY.	*Examination Chemistry.*	Materia Medica.	Anatomy.	Medicine.	Medical Jurisprudence. *Examination Anatomy.*
TUESDAY.	*Examination Materia Medica.* Clinical Medicine.	Chemistry.	Surgery.	Physiology.	Midwifery. *Examination Anatomy.*
WEDNESDAY	*Examination Chemistry.* Examination Physiology	Materia Medica.	Anatomy.	Medicine.	Medical Jurisprudence.
THURSDAY.	*Examination Materia Medica.* Clinical Surgery	Chemistry. Examination Medicine.	Examination Anatomy.	Physiology.	Midwifery. *Examination Anatomy.*
FRIDAY.	*Examination Chemistry.*	Practical Chemistry.	Surgery.	Medicine.	Medical Jurisprudence.
SATURDAY.	Examination Chemistry. Examination Medicine.	Examination Surgery.	Anatomy.	Physiology.	Examination Midwifery. Examination Materia Medica. *Examination Anatomy.*

HOSPITAL ATTENDANCE.

7 to 8 A. M. daily...*Clinical Medical Ward.*
8 to 9 A. M. daily...*Clinical Surgical Ward.*
4 to 5 P. M. daily...*Clinical Midwifery Ward, and Dispensary for Women and Children.*

C. MOREHEAD,
Principal, Grant Medical College.

10*th June* 1852.

APPENDIX D.

Abstract of Roll Calls of Students for the Session 1852-53.

Names.	Absent.	Leave.	Sick.	Total.	No. of Roll Calls.
Nasserwanjee Bomonjee	3	4	226	233	
Ardaseer Jemsetjee	10	18	38	66	
Shamrao Narrayen	1	1	23	25	
Rustomjee Byramjee	..	4	44	48	
Pallonjee Pestonjee	5	8	190	203	935
Balkrishna Sukharam	21	5	48	74	
Ruttonjee Hormusjee	..	4	5	9	
Balla Gopall	16	3	47	66	
Moreshwer Junardun	3	13	30	46	
Rustomjee Merwanjee	1	4	9	14	
M. A. Misquitta	..	1	3	4	
Henry Horne	9	..	637	646	1184
Hormusjee Bazunjee	3	11	63	77	
A. M. Continho	..	1	6	7	
Burjorjee Ardaseer	..	1	1	2	
Cooverjee Dorabjee	..	1	3	4	826
A. D. Souza	4	5	8	17	
Bartholomews Vas	..	..	8	8	
Dheerujram Dulputram	..	5	2	7	
Bazunjee Rustomjee	3	1	23	27	
Cursetjee Framjee	..	1	2	3	602
Cowasjee Nowrojee	4	6	51	61	

C. MOREHEAD,
Principal, Grant Medical College.

APPENDIX E.

Return of Student Apprentices who have attended the College during the Session 1852-53.

No.	Names.	Age at Admission.	Date of joining the College.	Remarks.
1	Edward Cook	17	10th June 1850	Received Certificate of Qualification.
2	James Sinclair	18	7th August ,,	
3	Vincent De Souza	21	June 1851	
4	Henry Meehan	19	,, ,,	Dead.
5	Edward Heffernan	18	,, ,,	
6	Patrick Drumm	18	,, ,,	
7	James Xavier	22	,, ,,	Promoted, and left the College.
8	C. T. Lewis	22	,, ,,	
9	Gasper De Rozario	20	,, ,,	Promoted, and left the College.
10	Daniel Oniell	22	15th June 1852	
11	Charles Stephens	20	,, ,,	
12	Henry Washington	19	,, ,,	
13	Francis Pinto	20	,, ,,	
14	Amerine Vere	20	,, ,,	
15	John Johnstone	18	8th July 1852	
16	Sylvester Cavanagh	18	1st Sept. ,,	

C. Morehead,
Principal, Grant Medical College.

APPENDIX F.

Abstract of Roll Calls of Student Apprentices for the Session 1852-53.

Names.	Absent.	Leave.	Sick.	Total.	No. of Roll Calls.
Edward Cook	5	4	15	24	1008
James Sinclair	10	8	244	262	
Vincent De Souza	..	...	..	..	1033
Edward Heffernan	3	55	42	100	
P. Drumm	1	11	22	34	
C. T. Lewis	1	2	22	25	
Daniel Oneill	5	..	148	153	538
Charles Stephens	13	2	36	51	
Henry Washington	..	2	5	7	
Frances Pinto	1	...	7	8	
Amerine Vere	9	..	15	24	
John Johnstone	5	..	86	91	
Sylvester Cavanagh	1	..	17	18	

C. Morehead,
Principal, Grant Medical College.

APPENDIX G.

Return of Warrant Medical Officers and Hospital Assistants who have attended the College during the Session 1852-53.

No.	Names.	Rank.	Date of joining the College.
1	Thomas Blaney	Hospital Steward.	16th June 1851
2	Richard Hudson	Assist. Apothecary.	Ditto
3	Robert Angell	Ditto	Ditto
4	Charles Thompson ..	Ditto	Ditto
5	Tatia Mahadowjee....	Ditto	Ditto
6	Thomas Fernandes...	Ditto	Ditto
7	George Sinclair	Ditto	Ditto
8	William Conway.....	Ditto	23rd June 1849
9	Frances St. Frances..	1st Hospital Assist.	16th June 1851
10	Bhow Ramjee.....	2nd Ditto	Ditto
11	Joseph Rozario	Ditto	15th June 1852
12	D. J. R. Cunha.....	Ditto	Ditto

C. Morehead,
Principal, Grant Medical College.

APPENDIX H.

NUMBERS IN ATTENDANCE IN THE COLLEGE.

Students.

Remained at close of last Session.. ..	.. ..	22
Admitted at commencement of this Session	.. ..	5
	Total....	27

Student Apprentices.

Remained at the close of last Session ..	.. ..	9
Admitted at commencement of the Session	.. ..	7
	Total....	16

Warrant Officers and Hospital Assistants.

Number attending during the Session ..	.. ..	12

C. Morehead,
Principal, Grant Medical College.

APPENDIX I.

Statement of the Numbers attending the several Courses of Lectures.

Anatomy.

Students	15
Warrant Officers and Hospital Assistants	9
Student Apprentices	13

Chemistry.

Students	11
Warrant Officers and Hospital Assistants	8
Student Apprentices	7

Materia Medica.

Students	10
Warrant Officers and Hospital Assistants	7
Student Apprentices	7

Physiology.

Students	10
Warrant Officers and Hospital Assistants	9
Student Apprentices	6

Principles and Practice of Medicine.

Students	13
Warrant Officers and Hospital Assistants	10
Student Apprentices	8

Surgery.

Students	13
Warrant Officers and Hospital Assistants	10
Student Apprentices	8

Midwifery.

Students	9
Warrant Officers and Hospital Assistants	9
Student Apprentices	2

Medical Jurisprudence.

Students	9
Warrant Officers and Hospital Assistants	9
Student Apprentices	2

C. Morehead,
Principal, Grant Medical College.

APPENDIX J.

Return of the Sick treated in the Clinical Medical Ward of the Jamsetjee Jejeebhoy Hospital, in the Session 1852-53, *from* 15*th June* 1852 *to* 15*th April* 1853.

Names of Diseases.			Number Admitted.	Number Discharged.	Died.	Total.	Remarks.
Fevers.	Intermittent	Quotidian	21	21	..		
		„ with Bronchitis	2	2	..		
		„ „ Pneumonia	2	2	..		
		„ „ Enlarged Spleen	4	4	..		
		„ „ „ and Bronchitis	1	1	..		
		„ „ Dysentery	2	2	..		
		„ „ Hepatitis	1	1	..		
		Tertian	2	2	..		
		„ duplex	2	2	..		
						37	
	Remittent	Simple	5	4	1		
		With Gastric Complication	1	1	..		
		„ Jaundice	2	2	..		

Names of Diseases.		Number Admitted.	Number Discharged	Died.	Total.	Remarks.
Fevers. Remittent	With Bronchitis	1	..	1		
	" " and Enlarged Liver	1	1	..		
	" Pleuritis	1	1	..		
	" Pneumonia & Parotitis	1	1	..		
					12	
Abdominal Diseases	Abscess of Abdominal Wall	1	1	..		
	Peritonitis	1	..	1		
	Hepatitis	5	5	..		
	Hepatic Abscess	9	4	5		
	" " and Pleuritis	1	1	..		
	Jaundice	4	4	..		
	Dysentery	10	7	3		
	Bright's Disease	9	8	1		
	" " with Acute Pleuritis	1	1	..		
	Chylo Serous Urine	1	1	..		
	Enlarged Spleen	6	5	1		
	" " and Liver	1	1	..		
	Dysentery and Jaundice	1	1	..		
					50	
Thoracic Diseases	Pneumonia	4	3	1		
	" with Pleuritis	2	1	1		
	Bronchitis	4	4	..		
	Pleuritis	2	2	..		
	" Traumatic	1	1	..		
	" with Bronchitis and Dysentery	1	1	..		

	Phthisis Pulmonalis	12	1	4	
	,, with Pleuritis	2	..	2	
	Asthma	1	1	..	
	Disease of Heart (valves)	3	2	1	32
Disease of the Nervous System	Concussion of Nervous System	1	1	..	
	Delirium Tremens	1	1	..	
	Hemiplegia	10	10	..	
	Paraplegia	1	1	..	
	Facial Palsy	2	2	..	
	Chorea	1	1	..	
	Tetanus, Idiopathic	5	3	2	
	,, Traumatic	2	1	1	23
Other Diseases	General Dropsy	3	3	..	
	Rheumatism, with Pericarditis	1	1	..	
	,, (Syphilitic)	1	1	..	
	Poisoning by Arsenic, Secondary effects.	1	1	..	6
	Total	160	135	25	160

C. Morehead,
Professor of Medicine, Grant Medical College.

Note of the Principal Classes of Diseases treated in the Jamsetjee Jejeebhoy Hospital, from 1*st April* 1852 *to* 31*st March* 1853.

Admissions, 4,162. Deaths, 615.

Classes of Diseases.	Admissions.	Deaths.
Fevers	447	47
Eruptive fevers, chiefly small-pox	47	20
Diseases of the Liver	90	16
Diseases of the stomach and bowels	518	196
Cholera	74	43
Diseases of the brain	137	25
Dropsies	50	19
Rheumatic affections	356	...
Venereal affections, and diseases of genital organs.	568	1
Abscesses and ulcers	274	27
Wounds and injuries	528	12
Diseases of the lungs	303	83
Diseases of the eye	78	..
Diseases of the skin	129	8
Other diseases, including poisoning by arsenic, dhatura, opium, and cases of parturition	463	118
Total	4162	615

C. Morehead,
Principal, Grant Medical College.

Note of the Principal Castes, and Diseases treated in the Jamsetjee Jejeebhoy Hospital Out-Patient Dispensary.

Total, 14,239.

Castes.	Numbers.
Christians	735
Mussulmans	3,060
Hindoos	3,909
Parsees	1,313
Women of all castes	3,118
Children of both sexes, and all castes, under 7 years of age	2,104
Total.....	14,239

The following classes of diseases constitute a part of those treated at the Dispensary:—

Fevers	1,521
Affections of the stomach and bowels.....	1,794
Affections of air passages	1,319
Rheumatic affections	1,165
Venereal affections	1,541
Skin diseases	1,986
Uterine diseases	99

C. Morehead,
Principal, Grant Medical College.

APPENDIX K.

Table of Diseases and Injuries treated in the Clinical Surgical Ward during the Session 1852-53.

Diseases.			Admitted.	Discharged.	Died.	Remarks.
Strangulated Inguinal Hernia			1	*a*1		*a* Relieved by operation.
Diseases of Urinary Organs		Calculus vesicæ	5	*b*5		*b* In two Stone was suspected, but could not be detected on the day fixed for the operation. In the remaining three Lithotomy was successfully performed.
		Stricture of urethra	1	1		
		Do. with extravasation of urine	1	1		
		Contusion of perineum with laceration of urethra	1	1		
		Fistula in Perineo	1		*c*1	*c* Died with head symptoms.
Fistula in Ano			1	1		
	Simple	Femur	2	2		
		Tibia	1	1		
		Humerus	3	3		
		Clavicle	1	1		
		Ribs	1	1		

FRACTURES.	Compound ..	Skull	1		*d*1	*d* Died with head symptoms.
		Do. and Clavicle and Radius *e*	1		1	*e* All these occurred in one individual, who died with head symptoms and Diarrhœa.
		Left humerus.	1	1		
		Metacarpal bones	1	1		
		Phalanges ..	1	1		
	Compound & Comminuted.	Toes	1		*f*1	*f* Died of Tetanus.
Concussion of the Brain			1	1		
Diseases of Bones..	Caries		2	*g*1		*g* In one case amputation was performed, and the stump did well. In the other excision of the bones of elbow joint was performed. The patient is still in the Hospital, doing well.
	Necrosis		1	*h*1	1	*h* Sequestrum was removed by enlarging fistulous opening, and cutting a piece of new bone.
Tetanus Idiopathic.			1			
Scirrhus.....			1	*i*1		*i* Was discharged, the operation being deeemed unjustifiable.
Dry Gangrene.....			*j*1			*j* The patient is still in the Hospital, doing well.
Wounds.....	Incised		2	2		
	Contused and Lacerated..		11	11		
Ulcers	Sloughing		1		*k*1	*k* Died from exhaustion.
	Scorbutic		5	3	*l*2	*l* Died from Diarrhœa.
	Irritable		1	1		
	Weak		1	1		
Contusion.			1	1		
Burns			1	1		
Hydrocele			3	3		
Abscesses Acute			1		*m*1	*m* The patient died hectic.

Diseases.	Admitted.	Discharged.	Died.	Remarks.
Syphilitic Diseases { Primary	2	2		
Syphilitic Diseases { Secondary	1	1		
Syphilitic Diseases { Gonorrhœa	1	1		
Gonorrhœal Rheumatism	1	1		
Total	64	53	9	

This Return does not give all the means of Clinical Surgical instruction during the Session. The Dressers have been very careless, and lost the cases. I record their names, viz: Rustomjee Byramjee, Balla Gopall, Moreshwer Junardun, Rustomjee Merwanjee, Henry Horne, Pallonjee Pestonjee, Balcrishna Succaram, Ruttonjee Hormusjee, M. A. Misquitta, and Hormusjee Bazunjee.

C. Morehead,
Principal, Grant Medical College.

Table of Capital and Minor Operations performed in the presence of the Students, during the Session 1852-53.

Lithotomy, lateral operation	3
Inguinal hernia relieved by operation	1
Amputation of Thigh	1
Do. Leg	1
Do. Foot	1
Do. Toes	4
Do. Arm	1
Do. Fore-arm	1
Do. Middle Finger	1
Excision of Elbow-joint	1
Removing encysted Tumor	1
Do. Calculus from the Urethra	2
Do. Polypus from the Nose	2
Incision of Perineum for extravasation of Urine	1
Do. of the Scrotum for œdema	1
Division of Fistula in Ano	1
Slitting up Sinuses	20
Circumcision and slitting up Prepuce	8
Hydrocele tapped	111
Extracting foreign bodies from the Nose	4
Do. do. Ear	1
Do. Teeth	158
Opening Abscesses	356
Do. Liver	2
Do. Buboes	14
Passing Catheters, Bougies, and Sounds	83
Applying Issues, Setons, &c.	4
Carbuncles incised	4
Bleeding	28
Cupping	31
	865

C. MOREHEAD,
Principal, Grant Medical College.

APPENDIX L.

MEMORANDUM OF THE COURSE OF LECTURES UPON MIDWIFERY & DISEASES OF WOMEN & CHILDREN.

SESSION 1852-53.

PART I.—(*Consisting of twelve Lectures.*)

THE ANATOMY AND PHYSIOLOGY OF THE PELVIC ORGANS.—The Pelvis; standard, and deformed. The external and internal organs of generation in the female. The unimpregnated Uterus; the Ovaries; and the Fallopian Tubes. Impregnation. Fecundation, &c. The development of the Ovum, and of the Embryo. The gravid Uterus. The Membranes, &c. The Placenta. The Umbilical Cord. The Fœtal Circulation. The Physiology of Fœtal life. The Physiology of the Uterus and of the Ovaries. Menstruation. The disorders of Menstruation.

PART II.—(*Consisting of six Lectures.*)

THE SUBJECT OF NATURAL PREGNANCY AND ITS DEVIATIONS.—The signs, diseases, and treatment of Pregnancy, in the early and late months. Extra-Uterine-Pregnancy. Retroversion of the Uterus. Abortion; definition, history, causes, prognosis, symptoms, and treatment.

PART III.—(*Consisting of twenty Lectures.*)

The subject of Labour or Parturition.—A general description of Labour, its stages, and the Mechanism of Parturition. Denman's arrangement of the different kinds of Labour followed, viz :—

I.—Natural Labour.—Definition, management, duties during each stage, after treatment.

II.—Difficult Labour.—1*st, Tedious.*—Causes of, in the 1st and 2nd stages. Rules of treatment. Ergot of Rye. 2*nd, Instrumental.*—Description of different sorts of Instruments employed; rules respecting their use. The operations of Craniotomy, Cæsarian section, &c. The induction of Premature Labour.

III.—Preternatural Labour.—(1) Of the Breech, or lower extremities. (2) Of the Trunk and upper extremities. The operation of Version, or turning.

IV.—Complex Labour.—(1) On the part of the child; as prolapse of the cord, plural births, monstrosities. (2) On the part of the mother, as to morbid states of the nervous system, chest, and abdomen. (3) Rupture of the Uterus; causes, symptoms, treatment. (4) Uterine Hœmorrhage; sources, causes, symptoms of moderate and severe floodings; general rules of treatment. Unavoidable, accidental, and post-partum, hœmorrhage specially considered with respect to causes, symptoms, and treatment of each. (5) Retention of the Placenta.

PART IV.—(*Consisting of six Lectures.*)

The Puerperal State, and its Diseases.—General phenomena; general management of convalescence after parturition. Lacerations of the perinœum. Post-partum inflammations; Sthenic and Asthenic. Phlegmasia Dolens. Inversion of the Uterus. Puerperal Mania Post-partum Fevers; mild and severe. Puerperal Fever. Affections of the Mammæ, sore Nipples, &c.

PART V.—(*Consisting of six Lectures.*)

THE DISEASES OF NEW-BORN CHILDREN.—The establishment of respiration, asphyxia or still-born. Injuries to the child due to the labour. The effect of mismanagement. Congenital diseases, &c. General rules for the examination of sick children. Sketch of the diseases of the nervous system, and of the spinal cord. Tetanus, causes, symptoms, post-mortem appearances, treatment; infantile therapeutics generally.

PART VI.—(*Consisting of eight Lectures.*)

THE DISEASES OF FEMALES, INDEPENDENT OF PREGNANCY AND PARTURITION.—These Lectures constituted the 6th Division of the course of Practice of Medicine, as detailed in the Syllabus at page 25, and were delivered to both the Classes of Medicine and of Midwifery conjointly.

W. C. COLES,
Officiating Professor of Midwifery.

April 15th 1853.

APPENDIX M.

Result of First Certificate Examination. Session 1852–53.

No. of Years' Study.	NAMES.	Anatomy.	Physiology.	Materia Medica.	Chemistry.	Practical Chemistry.	Practical Anatomy.	REMARKS.
7	*Nusserwanjee Bomanjee.*	*Qualified*	*Qualified*	*Qualified*	*Qualified*	*Qualified*	*Qualified*	*Qualified*
7	Ardaseer Jamsetjee	Do.	Do.	Do.	Do.	Do.	Do.	Do.
6	Shamrao Narrayen	Do.	Do.	Do.	Do.	Indifferent	Indifferent	Do.
5	Balkrishna Sukharam ..	Do.	Do.	Do.	Do.	Do.	Qualified	Do.
4	Balla Gopall	Do.	Do.	Do.	Do.	Qualified	Do.	Do.
4	Moreshwar Junardun ..	Do.	Do.	Do.	Do.	Do.	Do.	Do.
4	Rustomjee Merwanjee ..	Do.	Do.	Do.	Do.	Do.	Do.	Do.
3	M. A. Misquitta	Do.	Do.	Do.	Do.	Do.	Do.	Do.
3	Henry Horne	Do.	Do.	Not Qualified	Do.	Absent	Do.	Not Qualified
3	Hormasjee Bazunjee ..	Not Qualified	Not Qualified	Do.	Not Qualified	Not Qualified	Indifferent	Do.

C. MOREHEAD,
Principal, Grant Medical College.

April 1853.

APPENDIX N.

GRANT MEDICAL COLLEGE.

The Annual Examinations at the Grant Medical College will commence on *Friday*, the 11th March, and be conducted in the following manner:—

I.—Examination of Candidates for "First Examination" Certificates.

Friday, 11*th March*.—Practical Anatomy.
Saturday, 12*th*.—Written examination in Anatomy and Physiology.
Monday, 14*th*.—Written examination in Chemistry.
Tuesday, 15*th*.—Oral examination in Anatomy.
Wednesday, 16*th*.—Oral examination in Chemistry.
Thursday, 17*th*.—Written examination in Materia Medica.
Friday, 18*th*.—Oral examination in Materia Medica and Botany.
Saturday, 19*th*.—Oral examination in Physiology.
Monday, 21*st*.—Practical Chemistry and Pharmacy.

II.—Examination of Candidates for the Diploma of Graduate, conducted by the Government Examiner and Assessors.

Wednesday, 23*rd March*.—Operative Surgery.
Saturday, 26*th*.—Written examination in Medicine.
Tuesday, 29*th*—Oral examination in Medicine.
Wednesday, 30*th*.—Written examination in Surgery.
Friday, 1*st April*.—Oral examination in Surgery.
Saturday, 2*nd*.—Written examination in Midwifery.
Tuesday, 5*th*.—Oral examination in Midwifery.

Wednesday, 6*th*.—Written examination in Medical Jurisprudence.

Friday, 8*th*.—Oral examination in Medical Jurisprudence.

Saturday, 9*th*.—Practical exercises in Toxicology.

Examinations in the J. J. Hospital, in Clinical Medicine and in Clinical Surgery, were commenced in January.

III.—Examination of College Students.

1st and 2nd Year Students.

Friday, 11*th March*.—Practical Anatomy.

Saturday 12*th*.—Written examination in Anatomy and Physiology.

Monday, 14*th*.—Written examination in Chemistry.

Thursday, 17*th*.—Written examination in Materia Medica.

Monday, 21*st*.—Practical Chemistry and Pharmacy.

Saturday, 26*th*.—Oral examination in Anatomy.

Monday, 28*th*.—Oral examination in Chemistry.

Wednesday, 30*th*.—Oral examination in Materia Medica.

Thursday, 31*st*.—Oral examination in Physiology.

3rd and 4th Year Students.

Saturday, 26*th*.—Written examination in Medicine and Surgery.

Wednesday, 30*th*.—Written examination in Midwifery and Medical Jurisprudence.

Saturday, 2*nd April*.—Oral examination in Medicine and Surgery.

Wednesday, 6*th*.—Oral examination in Midwifery and Medical Jurisprudence.

The 3rd Year Students who do not present themselves for examination for "First Examination" Certificates will be examined in Anatomy, Physiology, and Materia Medica with the 2nd Year Students.

IV.—Examination of Student Apprentices.

1st and 2nd Year Student Apprentices.

Tuesday, 15*th March*.—Anatomy and Physiology.

Wednesday, 16*th*.—Chemistry and Materia Medica.

Saturday, 2*nd April*.—Medicine and Surgery.

3rd Year Student-Apprentices.

Friday, 11*th March.*—Practical Anatomy.
Thursday, 17*th.*—Written examination in Materia Medica.
Monday, 21*st.*—Practical Chemistry and Pharmacy.
Wednesday, 23*rd.*—Operative Surgery.
Saturday, 26*th.*—Oral examination in Anatomy.
Monday, 28*th.*—Oral examination in Chemistry.
Wednesday, 30*th.*—Oral examination in Materia Medica.
Thursday, 31*st.*—Oral examination in Physiology.
Saturday, 2*nd April.*—Oral examination in Medicine and Surgery.
Monday, 4*th.*—Written examination in Medicine and Surgery.
Wednesday, 6*th.*—Oral examination in Midwifery and Medical Jurisprudence.

V.—Examination of Warrant Medical Officers.

Saturday, March 26*th.*—Anatomy and Physiology.
Monday, 28*th.*—Chemistry.
Wednesday, 30*th.*—Materia Medica.
Saturday, 2*nd April.*—Medicine and Surgery.
Wednesday, 6*th.*—Midwifery and Medical Jurisprudence.

Hospital Stewards, Assistant Apothecaries, and Native Hospital Assistants, desirous of undergoing the Examination contemplated in the 35th Article of the Government Order dated 2nd April 1851, are requested to give in their names to the Acting Principal before the 10th of March.

From these Examinations will be awarded the *Carnac, Farish, Anderson,* and *Reid* Scholarships, and the *Sir Jamsetjee Jejeebhoy* Annual Prize to the Students of the College; and the *Burnes'* Medal to the best 3rd Year Student Apprentice.

The *Willoughby* Medical Prize of Rs. 300 will be awarded in the first week of April. Candidates are referred to the Government Notification dated November 15th 1851.

The Examinations on each day will commence at 11 o'clock A. M., and the attendance of Medical Gentlemen, and others interested in medical education, will be acceptable.

JOHN MCLENNAN, M.D.,
Government Examiner.

H. GIRAUD, M.D.,
Acting Principal, Grant Medical College.

Bombay, March 1st 1853.

APPENDIX O.

FIRST EXAMINATION CERTIFICATES.

Anatomy.

1. Describe the nerves of the orbit, mentioning their origin at the surface of the brain, their relative positions in the cavernous sinus, and their final distribution in the orbit.
2. Describe the origin, course, relations, and branches of the external pudic artery.
3. Describe the male urethra, stating the length of its several portions, with their relative calibre, and enumerate the ducts which open into it.
4. Describe the origin, course, and relation to muscles, blood-vessels, and nerves of the right common carotid artery.

G. Ballingall,
Acting Professor of Anatomy.

Chemistry.

1. What are the effects of sulphuretted hydrogen and hydro-sulphuret of ammonia respectively on solutions of sulphates of copper, zinc, iron, and cadmium of acetate of lead, arsenious acid, and tartar emetic?
2. Describe the physical and chemical properties, and the chemical composition of the albuminous principles, and state in what respects gelatine differs from them.
3. In the analysis of a metallic alloy of copper and silver there have been obtained 249 grains of chloride of silver and 67 grains of protoxide of copper; state how much of each metal was present in the alloy.
4. How would you distinguish by analysis a calculus of bone earth from one of triple phosphate?

H. Giraud, M.D.,
Professor of Chemistry.

Materia Medica.

1. How may dilute hydrocyanic acid be prepared? What are the chemical changes that occur in the process? How would you estimate the strength of any specimen of the dilute acid, and what is the strength of the acid of the pharmacopeia?
2. What are the physiological and therapeutic actions of digitalis? What are its officinal preparations, and how would you administer them?
3. What are the physiological and therapeutic actions of colchicum? With what precautions should it be administered, and what are its officinal preparations?
4. What is the ferri carbonas saccharatum, and what are the superior advantages of this preparation of iron?

H. Giraud, M.D.,
Professor of Materia Medica.

Physiology.

1. State the changes, both chemical and mechanical, which the food undergoes in the mouth, stomach, and small intestines. Indicate at the same time the movements and secretions by which these are effected, and also describe what occurs during deglutition.
2. State the nitrogenous compounds which require to be eleminated from the blood, and indicate the means by which this is accomplished.

J. F. Watson,
Acting Professor of the Institutes and Practice of Medicine, and Clinical Medicine.

APPENDIX P.

REPORT OF THE FINAL EXAMINATION BY THE GOVERNMENT EXAMINER.

Bombay, 12th April 1853.

To J. G. LUMSDEN, Esquire,

Secretary to Government, General Department.

SIR,

I have the honor to submit a report of the Final or Diploma Examination of the Students of the Grant Medical College, for the Session 1852-53, which terminated on the 9th instant; it is in duplicate, one copy being for the information of Government, and the other of the Board of Education.

2. Having in two previous reports detailed at some length the nature of the examinations on each subject, I need not on this occasion recapitulate, but may briefly state that in every respect they have been fully as searching as formerly, and have been conducted with as great attention to the ascertainment that the candidates were unassisted.

3. In Practical Surgery each candidate performed one, and those whose performance was not quite satisfactory, two capital operations, and likewise tied a principal artery, or dissected an anatomical region. The operations performed were lithotomy, 2; amputation of shoulder joint, 1; of leg below the knee, 1; of ankle (Symes' operation), 2; of foot (Hey's operation), 1; and the following arteries were tied:—subclavian, 2; right common carotid, 1; external iliac, 1; internal iliac, 1; femoral, 1.

4. The Clinical examinations and reports of cases in Hospital were carried on three times a week during the last half of January, and throughout February.

5. The examinations on Medicine, Surgery, Midwifery, the Diseases of Women and Children, and on Medical Jurisprudence,

written and oral, were conducted on eight separate days. Orally, each candidate was under examination on each subject from half an hour to an hour; the questions for the written examinations on each branch are appended.

6. As in former years, there were practical exercises in Toxicology and Medical Jurisprudence, six in number; of which each student successfully performed three; the subjects were the ascertainment of oxalic, sulphuric, and nitric acids; a cupreous, an arsenical, and a narcotic poison.

7. The result of these examinations was the ascertainment that of six candidates who presented themselves, three were deemed qualified for the diploma of Graduate, and three were rejected.

8. The names of the successful candidates are subjoined in the order of their merit, as taken from the notes of the examinations by the Government Examiner, the Assessors, the Principal, and the Professors of the College :—

Rustomjee Byramjee,
Ardaseer Jamsetjee,
Nusserwanjee Bomanjee.

The paper marked A contains the result of the various examinations of the candidates.

9. I beg to submit for the favourable consideration of Government my recommendation that an appointment of Sub-Assistant Surgeon may be given to Rustomjee Byramjee, who has obtained the Sir Jamsetjee Jejeebhoy Annual Prize as the most distinguished Fifth Year Student.

10. In conclusion, I have to express my sense of the very valuable aid which on the various occasions of oral and practical examinations I received from the Government Assessors, Surgeon M. Stovell, European General Hospital; Surgeon Arbuckle, M. D., 2nd Battalion Artillery, and Assistant Surgeon Campbell, M. D., Superintendent Lunatic Asylum, and from the Principal and Professors of the College.

I have the honor to be, Sir,
Your most obedient Servant,
(Signed) JOHN MCLENNAN,
Government Examiner.

A.

Result of Diploma Examination. Session 1852-53.

NAMES.	Clinical Medicine and Surgery.	Medicine.	Surgery.	Operative Surgery.	Midwifery.	Medical Jurisprudence.	REMARKS.
Rustomjee Byramjee ..	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	To obtain the Diploma.
Ardaseer Jemsetjee	ditto.	ditto.	ditto.	ditto.	ditto.	ditto.	
Nusserwanjee Bomanjee.	ditto.	ditto.	ditto.	ditto.	ditto.	ditto.	
Shamrao Narayen	ditto.	Not qfd.	Not qfd.	ditto.	ditto.	ditto.	Rejected.
Balcrushna Suckaram ..	ditto.	ditto.	ditto.	ditto.	ditto.	ditto.	
Palonjee Pestonjee	ditto.	ditto.	ditto.	ditto.	ditto.	ditto.	

(Signed) JOHN MCLENNAN, Government Examiner.

B.

26th March 1853.

On Medicine.

1st.—What is the pathology of dropsy? What are its predisposing and exciting causes generally, and what are the indications of cure with reference to these causes? State briefly the kinds of dropsy in which mercury is, and is not, useful.

2nd.—What are the principles of treatment in spasmodic diseases generally, and more particularly in chorea, hysteria, and epilepsy?

3rd.—In what diseases or states may albumen be found in the urine? How do you explain temporary albuminuria occurring in certain kinds and stages of fevers?

4th.—Describe the respiratory movements in the following diseases:—acute laryngitis; emphysema of the lungs; acute pleuritis of one side—and give the rationale of the differences. How is incipient pleurisy to be diagnosed from rheumatism of the intercostal muscles?

5th.—Describe the principal varieties of the pulse at the wrist, and in what respect they may be severally regarded as diagnostic of morbid or deranged conditions of the system.

6th.—Mention the diseases most prevalent in jails in India, their probable causes and most efficacious means of prevention.

John McLennan,
Government Examiner.

C.

30th March 1853.

On Surgery.

1st.—To what cases of aneurism of the extremities is the mode of cure by compression applicable? What advantages has it as a mode of treatment over that by ligature, and what dangers attending the cure of aneurism by ligature are prevented by

attempting the cure by compression? State those cases in which you would necessarily employ the ligature in preference to attempting the cure by the other mode.

2nd.—What are the dangers to be apprehended from "shock" attendant on injuries? How are they to be obviated, and what ought to be our guides in the treatment?

3rd.—In what kinds of inflammations does metastasis most commonly occur? Enumerate those metastases of most frequent occurrence in surgical practice. What are the peculiarities of gonorrhœal rheumatism?

4th.—What treatment dependent on differences in the protruded parts, and on the various states of those parts, is adapted to protrusion of the viscera of the abdomen through a wound in its walls?

5th.—Describe the physical condition of myopia and presbyopia—the means of relieving each of those states, and the principle on which these means would be adopted.

6th.—What is catarrhus vesicæ, and on what circumstances do the indications of treatment depend? Name those medicines often or generally found useful in this affection.

JOHN MCLENNAN,
Government Examiner.

D.

2nd April 1853.

ON MIDWIFERY, AND DISEASES OF WOMEN AND CHILDREN.

1st.—State the circumstances under which, in obstetric practice, the use of chloroform as an anæsthetic agent is advisable, and, in regard to its use in labours, mention the various kinds and stages of labour in which, in each case, it may be had recourse to.

2nd.—What are the indications which ergot is calculated to fulfil in the puerperal and non-puerperal states? Mention the dangers attending its use in the puerperal state, and describe the circumstances under which it should be given in tedious labours.

3rd.—How may puerperal convulsions be classed in reference

to their predisposing causes? What is the treatment of the different varieties, and in what forms, or in what stages in certain forms, may opium be serviceable?

4th.—Describe briefly the differences between simple and tubercular meningitis and that disease termed hydrocephaloid in the young, and likewise briefly the indications of treatment dependant on these differences.

5th.—With what disease may the inflammatory diarrhœa, or dysentery, or inflammation of the intestinal mucous membranes of children be confounded, and how is the diagnosis to be made?

6th.—Name those diseases in children, occurring in the first month of life, which are characterized by abnormal colour of the skin, and give briefly their pathology.

JOHN MCLENNAN,
Government Examiner.

E.

6th April 1853.

ON MEDICAL JURISPRUDENCE.

1st.—From what violent causes may death arise without conclusive proof of such causes being obtainable by a post-mortem examination? In some of such cases, what circumstances might assist you in giving an opinion as to the probable cause of death?

2nd.—Is there any tumour of the head occasionally seen in children of one or two days old, which, under particular circumstances of suspicion, might be confounded with the appearances likely to be caused by violence inflicted with ill-intent. What name has been given to this tumour, and why? Where does it generally occur? What are its symptoms, and how do you explain them? With what other tumour might it be confounded, and what at once settles the diagnosis?

3rd.—In what manner does air, admitted into the circulation, kill? What are the deleterious gases? Which of these, as they have been classed, are irritant, and which narcotic? From what gases, and how applied, do accidents most commonly arise? and what is the treatment for poisoning with carbonic acid gas?

4th.—State briefly the means employed to effect criminal abortion. Is it more easily effected in the early or advanced stages of pregnancy; and what are the signs of its having taken place in the early months?

5th.—Mention the circumstances which, in a case of alleged rape on a female child under ten years of age, would induce you to give a decided opinion that the crime had been committed, and point out conditions (occasional) of the parts which would resemble such a state, although quite unconnected with it.

6th.—State the circumstances under which articles of food may acquire cupreous impregnation. Mention briefly the articles most likely to be so impregnated, the means of detection, the symptoms produced, and the best antidote.

JOHN MCLENNAN,
Government Examiner.

APPENDIX Q.

GRANT MEDICAL COLLEGE.

NOTIFICATION.

The following Scholarships and Prizes will be open for competition at the close of the Session 1852-53, viz. in the month of April 1853 :—

I.

To the 4th and 3rd Year Students.

A CARNAC Scholarship, of Rupees 25 monthly, to the best Anatomist, *Practical and Surgical Anatomy included.*

II.

To the 4th Year Students.

An ANDERSON Scholarship, of Rupees 25 monthly, for the greatest proficiency in, and practical knowledge of, Medicine, Surgery, and Midwifery.

In awarding this Scholarship, much importance will be attached to assiduous and regular attendance in the Clinical Wards, and to efficiency and zeal in the discharge of the duties of Clinical Clerk and Dresser.

III.

To the 3rd and 2nd Year Students.

An ANDERSON Scholarship, of Rupees 25 monthly, for the greatest proficiency in Anatomy, Physiology, Materia Medica, and Practical Pharmacy.

A REID Scholarship, of Rupees 20 monthly, for the greatest proficiency in Anatomy and Physiology.

A FARISH Scholarship, of Rupees 20 monthly, for the greatest proficiency in Materia Medica and Practical Pharmacy.

IV.

To the 2nd and 1st Year Students.

A CARNAC Scholarship, of Rupees 15 monthly, for the greatest proficiency in Anatomy.

An ANDERSON Scholarship, of Rupees 15 monthly, for the greatest proficiency in Chemistry, both Theoretical and Practical.

V.

To the 1st Year Students.

A CARNAC Scholarship, of Rupees 15 monthly, for the greatest proficiency in the subjects of study during the Session.

A FARISH Scholarship, of Rupees 10 monthly, for the second degree of proficiency in the subjects of study.

SIR JAMSETJEE JEJEEBHOY Annual Medical Prize, of Rupees 250, to be awarded to that 4th or 5th Year Student who, having passed his final Examination, ranks first, and has, in the judgment of the Government Examiner, evinced a very creditable practical knowledge of Medicine, Surgery, Midwifery, and Medical Jurisprudence.

(Signed) C. MOREHEAD,
Principal, Grant Medical College.

Bombay, 18*th October* 1852.

By Order of the Board of Education,
M. STOVELL, Secretary.

APPENDIX R.

Scholarships and Prizes awarded to the Students of the Grant Medical College at the close of the Session 1852-53.

1. A CARNAC Scholarship, of Rupees 25 monthly, to the best Anatomist, Practical and Surgical Anatomy included, open for competition to the 4th and 3rd year students, to *Ruttonjee Hormusjee*, a 4th year student, but as he held this Scholarship during the past Session, and as another of equal value has also been awarded to him, this Scholarship will pass to *Balla Gopall*, also a 4th year student, and the next in proficiency.

2. An ANDERSON Scholarship, of Rupees 25 monthly, for the greatest proficiency in, and practical knowledge of, Medicine, Surgery, and Midwifery, open to 4th year students, to *Ruttonjee Hormusjee*.

3. An ANDERSON Scholarship, of Rupees 25 monthly, for the greatest proficiency in Anatomy, Physiology, Materia Medica, and Practical Pharmacy, open to 3rd and 2nd year students, to *M. Continho*, a 2nd year student. Mr. Continho has also been the successful competitor for a Reid Scholarship for the greatest proficiency in Anatomy and Physiology, a Farish Scholarship for the greatest proficiency in Materia Medica and Pharmacy, both open to 3rd and 2nd year students, also a Carnac Scholarship for the greatest proficiency in Anatomy, an Anderson Scholarship for the greatest proficiency in Chemistry, open to 2nd and 1st year students. The pecuniary advantage of these Scholarships will pass to the proficients in the next degree, viz.

4. A REID Scholarship, of Rupees 20 monthly, for the greatest proficiency in Anatomy and Physiology, to *Rustomjee Merwanjee*, a 3rd year student.

5. A FARISH Scholarship, of Rupees 20 monthly, for the greatest proficiency in Materia Medica and Practical Pharmacy, to *Burjorjee Ardaseer*, a 2nd year student.

6. A CARNAC Scholarship, of Rupees 15 monthly, for the greatest proficiency in Anatomy, to *Cooverjee Dorabjee*.

7. An ANDERSON Scholarship, of Rupees 15 monthly, for the greatest proficiency in Chemistry, both Theoretical and Practical, to *Cowasjee Nowrojee*, a 1st year student.

8. A CARNAC Scholarship, of Rupees 15 monthly, for the greatest proficiency in the subjects of study, open to 1st year students, to *Bazunjee Rustomjee*.

9. A FARISH Scholarship, of Rupees 10 monthly, for the second degree of proficiency in the subjects of study, to *Cursetjee Framjee*.

The SIR JAMSETJEE JEJEEBHOY Annual Medical Prize has been awarded by the Government Examiner to *Rustomjee Byramjee*.

C. MOREHEAD,
Principal, Grant Medical College.

APPENDIX S.

Written Questions in Chemistry, Anatomy, and Physiology, to 1st and 2nd Year Students, and in Medicine, Surgery, Midwifery, and Medical Jurisprudence, to 3rd and 4th Year Students.

1ST AND 2ND YEAR STUDENTS.

Chemistry.

1. What is the composition of the yellow prussiate of potash, and by what chemical changes does it produce Prussian blue, with a persalt of iron?
2. What are the four alkaline earths; and how may they be distinguished from each other?
3. What are the necessary elements of a simple voltaic circle; and what are the chemical and electrical conditions of these elements when the circle is in action?
4. How were the metallic bases of the alkalies discovered?

H. GIRAUD, M.D.,
Professor of Chemistry.

1ST AND 2ND YEAR STUDENTS.

Anatomy.

1. Describe the mode of formation of the superficial and deep palmar arches, with the distribution of the digital branches.
2. Enumerate the muscles attached to the scapula, stating briefly the origin and insertion of each.
3. Describe the pneumo-gastric nerve, its origin and course, and enumerate briefly its chief branches, stating the difference of origin of the recurrent laryngeal on the two sides of the body.

G. BALLINGALL,
Officiating Professor of Anatomy.

2ND YEAR STUDENTS.

Physiology.

1. State the chemical composition and microscopic appearance of human blood, the difference between arterial and venous blood, and also indicate the forces engaged in the capillary and venous circulation.
2. Mention the names and functions of the nerves which supply the eye and its appendages; and explain what is meant by the terms "afferent" and "efferent," as applied to nerves.

J. T. WATSON,

Acting Professor of the Institutes and Practice of Medicine and Clinical Medicine.

2ND YEAR STUDENTS.

Materia Medica.

1. Point out the differences in action between aloes, elaterium, and croton oil.
2. From what source, and how is potassæ bitartras obtained? and what other medicinal salts are made from it?
3. What medicinal substances are obtained from the natural family umbelliferæ?
4. What is ipecacuanha, and what are its physiological and therapeutic actions?

H. GIRAUD, M.D.,

Professor of Materia Medica.

3RD AND 4TH YEAR STUDENTS.

Surgery.

1. State the periods at which secondary hœmorrhage is liable to occur after gunshot wounds, and describe the different modes of suppressing it, with the principles on which these modes are founded.

2. State the separate characters of dislocation and fracture separately, with the grounds for distinguishing them from one another.
3. State the symptoms of strangulated oblique inguinal hernia, and the means of distinguishing it from other tumors in that region.

G. BALLINGALL,
Officiating Professor of Surgery.

3RD AND 4TH YEAR STUDENTS.

Medicine.

1. State the symptoms and signs which would enable you to distinguish acute pleuritis in its early stage from acute pneumonia in its early stage, and describe the treatment you would follow in the second stage of pneumonia, stating first the indications, and then the means you would adopt to fulfil them.
2. What are the principles you would observe in using the sulphate of quinine in the treatment of remittent fever, both simple and complicated with local inflammatory action or deranged abdominal secretions? Mention the doses, with the frequency of their repetition, required in remittent fever, as usually observed in Bombay.
3. In the treatment of remittent fever, simple and complicated, what other indications besides the exhibition of quinine must be observed?

C. MOREHEAD,
Professor of Medicine.

4TH YEAR STUDENTS.

Midwifery.

1. The formation, shape, size, and situation of the placenta? The utero-placental circulation?
2. Denman's definition of natural labour? Describe its mechanism and management.

3. The different varieties of forceps used in midwifery? State those to be preferred, and the rules respecting their employment.

W. C. Coles, M. D.,
Acting Professor of Midwifery.

4th Year Students.

Medical Jurisprudence.

1. The external and internal appearances of the body in cases of drowning, and the signs of most value to determine that death was due to drowning? The means of resuscitation?
2. The symptoms and post-mortem appearances of acute poisoning by arsenious acid?
3. The tests for hydrocyanic acid in a simple state, and when mixed up with organic matters.

W. C. Coles, M. D.,
Professor of Medical Jurisprudence.

APPENDIX T.

Result of Examination of 1st Year Students. Session 1852-53.

Nos.	Names.	Anatomy.	Chemistry.	Total.*	Remarks.
1	Bazunjee Rustomjee	1	2	3	
2	Cowasjee Nowrojee	3	1	4	
3	Cursetjee Framjee	2	3	5	

* The lowest number marks the greatest merit.

C. Morehead, Principal, Grant Medical College.

Result of Examination of 2nd Year Students. Session 1852-53.

Nos.	Names.	Anatomy.	Physiology	Chemistry.	Materia Medica.	Total.*	Remarks.
1	Antonio M. Continho	1	1	1	1	4	
2	Cooverjee Dorabjee	2	2	2	3	9	
3	Burjorjee Ardaseer	3	3	3	2	11	
4	Angelino De Souza	5	4	4	4	17	
5	Dheerajram Dulputram	4	5	5	5	19	
6	Bartholomew Vas	6	6	6	6	24	

* The lowest number marks the greatest merit.

C. Morehead, Principal, Grant Medical College.

April 1853.

Result of Examination of 3rd Year Students. Session 1852-53.

Nos.	NAMES.	Medicine.	Surgery.	Total.*	REMARKS.
1	M. A. Misquitta	1	1	2	
2	Rustomjee Merwanjee	2	2	4	
3	Hormusjee Bazunjee	3	3	6	
4	Henry Horne.....	3	4	7	

* The lowest number marks the greatest merit.

April 1853. C. MOREHEAD, Principal, Grant Medical College.

Result of Examination of 4th Year Students. Session 1852-53.

Nos.	NAMES.	Medicine.	Surgery.	Midwifery.	Medical Jurisprudence.	Total.*	REMARKS.
1	Ruttonjee Hormusjee	1	1	1	1	4	
2	Balla Gopall	2	2	2	2	8	
3	Moreshwur Junardun	3	3	3	3	12	

* The lowest number marks the greatest merit.

April 1853. C. MOREHEAD, Principal, Grant Medical College.

APPENDIX U.

REPORT TO THE MEDICAL BOARD.

SIR,

I have the honor to report, for the information of the Medical Board, the result of the Examinations for the year 1852-53, held by the Principal and Professors of the Grant Medical College in accordance with the 25th and 35th Articles of the Rules relative to the Subordinate Medical Department, dated 2nd April 1851.

2. The following 3rd Year Student Apprentices presented themselves for examination :—

Edward Cooke.
James Sinclair.

3. The result of the Examination is recorded in the annexed tabular statement marked I. The appearance made by Edward Cooke, in all the subjects on which he was examined, was highly creditable. The Burnes' Medal, presented by the Masonic Brethren of Bombay, has been awarded to him.

4. The following Hospital Steward, Assistant Apothecaries, and Native Hospital Assistants, presented themselves for examination :—

Mr. H. Webb, Hospital Steward.
Mr. R. Hudson,
Mr. C. Thompson,
Tatia Mahadowjee,
} Assistant Apothecaries.
Mr. Francis St. Francis, 1st Hospital Assistant.
Bhow Ramjee, 2nd Hospital Assistant.

5. The result of the Examinations is recorded in the tabular statement II. Mr. Webb is the first Warrant Officer who has

presented himself for examination without having had the advantage of following a course of instruction in the College; and the appearance made by him was very creditable to his ability and industry.

6. Mr. T. Blaney, Hospital Steward, and Mr. G. Sinclair and Mr. W. Conway, Assistant Apothecaries, who have been already reported qualified in Anatomy, Physiology, Materia Medica, Chemistry, Medicine, and Surgery, have this year passed a very good Examination in Midwifery and Medical Jurisprudence. They will, therefore, receive the Certificate of Qualification.

7. 2nd Hospital Assistant Bhow Ramjee, and Student Apprentice Edward Cooke, have, from the result of the Examinations, become eligible for promotion to the grade of Assistant Apothecary. Of the two, Edward Cooke ranks first.

I have the honor to be, Sir,

Your most obedient servant,

C. MOREHEAD,

Principal, Grant Medical College.

Bombay, 12th April 1853.

To F. MANISTY, Esq.,

Secretary Medical Board, Bombay.

I.

Result of Examination of 3rd Year Student Apprentices. Session 1852-53.

NAMES.	Anatomy.	Operative Surgery.	Physiology.	Materia Medica.	Chemistry.	Medicine.	Surgery.	Midwifery.	Medical Jurisprudence.	Total.	REMARKS.
Edward Cooke..	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.		Qualified.
J. Sinclair	Not Qualified.	Qualified.	Not Qualified.	Not Qualified.	Not Qualified.	Not Qualified.	Qualified.	Qualified.	Qualified.		Not Qualified.

April 1853. C. MOREHEAD, Principal, Grant Medical College.

II.

Result of Examination of Hospital Steward, Assistant Apothecaries, and Hospital Assistants. Session 1852-53.

NAMES.	Anatomy.	Physiology	Materia Medica.	Chemistry.	Medicine.	Surgery.	Midwifery.	Medical Jurisprudence.	Total.	REMARKS.
H. Webb.....	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.		Qualified.
R. Hudson	Not Qualified.	Qualified.	Not Qualified.	Not Qualified.	Not Qualified.	Not Qualified.	Not Qualified.	Qualified.		Not Qualified.
C. Thompson	Qualified.	Qualified.	Not Qualified.	Not Qualified	Not Qualified.	Qualified.	Not Qualified.	Qualified.		Not Qualified.
Tatia Mahadowjee..	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.	Qualified.		Qualified.
Francis St. Francis	Qualified.	Qualified.	Qualified.	Not Qualified.	Qualified.	Qualified.	Not Qualified.	Qualified.		Not Qualified.
Bhow Ramjee.....	Qualified.	Qualified.	Qualified.	Qualified	Qualified.	Qualified.	Qualified.	Qualified.		Qualified.

April 1853. C. MOREHEAD, Principal, Grant Medical College.

APPENDIX V.

REPORT TO THE MEDICAL BOARD.

Sir,

I have the honor to transmit, for the information of the Medical Board, tabular statements (I. and II.) exhibiting the result of the Examination of the 1st and 2nd Year Student Apprentices.

The following Prizes at the opening of the Session were placed at the disposal of the College by the Physician General:—

1st.—For the most proficient Candidate for Admission as Student Apprentice:

Quain's Anatomy.

2nd.—For the most proficient 1st Year Student Apprentice:

Watson's Practice of Physic.
Christison's Dispensatory.
Fowne's Chemistry.

3rd.—For the most proficient 2nd Year Student Apprentice:

Taylor's Medical Jurisprudence.
Churchill's Midwifery.
Carpenter's Physiology.
William's Principles of Medicine.
Cooper's First Lines of Surgery.

The first Prize was presented to Henry Washington, in the month of June last. The second Prize has been awarded to Henry Washington, and the third to Patrick Drumm.

I have the honor to be, Sir,
Your most obedient Servant,
C. Morehead,
Principal, Grant Medical College.

Bombay, 12*th April* 1853.

To F. Manisty, Esq.,
Secretary Medical Board.

I.

Result of Examination of 1st Year Student Apprentices. Session 1852-53.

Nos.	Names.	Anatomy.	Chemistry.	Materia Medica.	Total.*	Remarks.
1	Henry Washington	1	1	1	3	
2	S. Cavanagh	2	2	2	6	
3	Frances Pinto	3	3	4	10	
4	Charles Stephens	5	4	3	12	
5	John Johnstone	4	6	5	15	
6	Amerine Vere	6	5	6	17	
7	Daniel Oneil	7	7	7	21	

* The lowest number marks the greatest merit.

April 1853. C. Morehead, Principal, Grant Medical College.

II.

Result of Examination of 2nd Year Student Apprentices. Session 1852-53.

Nos.	Names.	Anatomy.	Physiology.	Medicine.	Surgery.	Total.*	Remarks.
1	P. Drumm	1	2	1	1	5	
2	Vincent De Souza	1	1	2	2	6	
3	E. Heffernan	2	3	3	3	11	
4	C. T. Lewis	3	4	4	4	15	

* The lowest number marks the greatest merit.

April 1853. C. Morehead, Principal, Grant Medical College.

APPENDIX W.

DONATIONS TO THE MUSEUM.

By Dr. W. B. Barrington.

1. Heart, showing abscess cavity in walls.
2. Heart, tricuspid and mitral valves thickened and contracted.
3. Tumour in cerebellum.
4. Diseased testicle.
5. Diseased larynx.
6. Heart, aortic valves thickened ; hypertrophy, with dilatation of left ventricle.
7. Portion of diseased brain.
8. Aorta, double aneurism.

By T. Waller, Esq.

1. Tumour, with contents of orbit.

By J. M. Bowie, Esq.

1. Fine specimen of diseased pleura and carnified lung.
2. Large intestine : extensive ulceration.
3. Specimens of diseased mesenteric glands.
4. Spleen, atrophy, with thick, firm lymph deposit on surface.

By Dr. Coles.

1. Fine specimen of tuberculated lung.
2. Liver, showing large abscess cavity.
3. Fœtus (sixth month).

By W. Thom, Esq.

1. Specimen of diseased heart.

By H. J. Carter, Esq.

1. Fœtus with placenta (eighth month).
2. Fœtus (sixth month).

By Dr. Leith.

1. Stomach and spleen of ant-eater.
2. Tongue, lower jaw, and salivary glands of ditto.
3. Uterus of ditto.
4. Skeleton, &c. of ditto.
5. Specimen of tape worm.

By Dr. Campbell.

1. A renal calculus.

By J. M. Knapp, Esq.

1. Sketch of diseased foot.

By Dr. Buist.

1. Fine specimen of "hair ball" from stomach of camel.

By T. B. Beatty, Esq.

1. Diseased mamma.
2. Two drawings showing appearances presented by the above, both before and after operation.
3. Cancer of penis.
4. Drawing of the above, before operation.
5. Upper jaw, with malignant tumour.
6. Drawing of ditto before removal.

By European General Hospital.

1. Aneurism of aorta opening into left bronchus.
2. Ulceration of large intestine, and portion of ileum.

By Mr. S. A. De Carvalho.

1. Larynx and trachea of saras (crane).
2. Heart of ditto.
3. Gizzard of ditto.
4. Skeleton of ditto.

By Medical and Physical Society.

1. Fine specimen of diseased bone, showing large sequestrum.
2. Drawing of diseased foot.
3. Four specimens of urinary calculi.

By J. Sinclair.

1. Two specimens of Guinea-worm.
2. A snake—cobra.

By F. Manisty, Esq.

1. Appendix vermiformis, with cyst.
2. Two calculi from the above.

By Apothecary Boswell.

1. Heart of ostrich.

By Mr. Atmaram Pandoorung.

1. Calculi extracted from the urethra.

By Mr. Burjorjee Dorabjee.

1. Specimen of Malay parrot.

By J. J. Hospital.

1. Fourteen specimens of diseased hearts.
2. Two ditto ditto lungs.
3. Seven ditto ditto kidneys.
4. Six urinary calculi.
5. Liver, abscess in.
6. Liver, cirrhosis of.
7. Two specimens of cirrhosis of liver, with abscesses.
8. Fœtus, full period.
9. Fœtus, with placenta (seventh month).
10. Uterus, with fœtus and placenta in situ.
11. Uterus with twins, &c., in situ.
12. Uterus, &c., shortly after parturition. Two specimens.
13. Three specimens of ditto unimpregnated.

14. Hypertrophy of uterus, with diseased ovaries.
15. Diseased kidney, bladder, and urethra. A stone encysted in the bladder.
16. Diseased tarsal bones.
17. Ditto elbow joint bones.
18. Stomach, contraction, with hypertrophy.
19. Tunica vaginalis, with diseased testicle in situ.
20. Diseased foot, showing peculiar histological element. Two specimens.
21. Larynx, abscess cavity at posterior part.
22. Specimen showing union of kidneys at lower ends.
23. Encysted tumour on cerebellum.
24. Large fatty tumour from axilla, with peculiar nucleus.
25. Specimen of tape worm.
26. Two ditto of Guinea-worms.
27. Guinea-worm which has become concrete.

By Unknown Donors.

1. Three specimens of diseased hearts.
2. Specimen of hypertrophy of stomach.
3. Do. do. of bladder.

MICROSCOPIC PREPARATIONS.

Vegetable Structures.

1. Two specimens of the protococcus nivalis, or red snow plant.
2. Simple cellular tissue. Section of cork.
3. Specimen showing premordial utricle, &c.
4. Woody fibre. Section of deal.
5. "Pitted tissue." Section of ivy stem.
6. Deposits in cells. Section of potatoe.
7. Starch grains. Potatoe.
8. Ditto Arrow-root.
9. Ditto Tapioca.
10. Ditto Sago.
11. Ditto Rice.

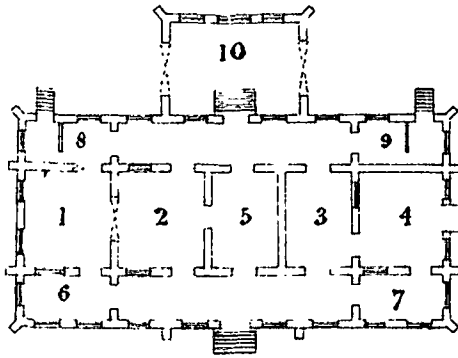
12. Raphides. Oxalate of lime crystals in medicinal rhubarb.
13. Do. do. do. in cuticle of onion.
14. "Milk vessels" from young plantain.
15. Spiral bands and fibres from ditto.
16. Fibres used in manufactures—
    1st, Cotton fibres.
    2nd, Do. do. acted on by caustic soda, according to Mercer's process.
17. 3rd, Linen fibres.
18. 4th, Silk do.
19. 5th, Wool do.
20. Sclerogenous tissues—
    1st, Section of cocoanut.
    2nd, Ditto of date stone.
21. Torula diabetica.

Animal Structures.

22. Two transverse sections of bone.
23. Vertical section of ditto.
24. Four specimens showing different stages in the development of bone.
25. Striated muscular fibre.
26. Two specimens of nerve tubes.
27. Twelve specimens of the blood of various animals, prepared and presented by Mr. S. A. de Carvalho.

J. F. Watson, M.D.,
Curator.

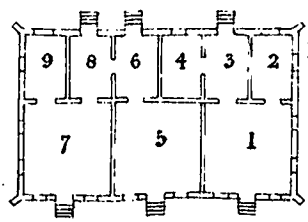
Plan of the Lying-in Hospital.



REFERENCES.

1,2. *Wards for Natives.*
3,4. *Do. for Europeans.*
5. *Matron's room.*
6,7. *Private rooms.*
8,9. *Bathing rooms.*
10. *Porch.*

Plan of the Eye Dispensary Vaccination Office & Dispensary for Women & Children.



REFERENCES.

1,2,3,4. *Rooms for Dispensary for women & children.*
5,6. *Vaccination Office.*
7,8,9. *Rooms for Eye Dispensary.*

10 5 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 Feet.

Scale of 45 ft. to an Inch.

APPENDIX X.

OBSTETRIC INSTITUTION, BOMBAY.

Proceedings of a Meeting of the Committee of the Obstetric Institution, held on Tuesday, the 22nd June 1852.

PRESENT,

J. Warden, Esq.; Juggonath Sunkersett, Esq.; Bomanjee Hormazjee, Esq.; Venayek Gungadhur Shastree, Esq.; Manockjee Limjee, Esq.; and Dr. Morehead.

The Committee having met and inspected the new building, Mr. Warden, the Chairman, submitted and read to the meeting the following Report:—

REPORT OF THE COMMITTEE FOR THE ERECTION OF THE OBSTETRIC INSTITUTION, BOMBAY.

The want of adequate means of providing assistance for the females of the poorer classes of the community of Bombay during the period of child-birth, led to a public meeting being held in April 1850, for the purpose of endeavouring to effect the establishment of a Lying-in Hospital.

2. A Committee was appointed by the meeting to collect subscriptions, and to make the arrangements necessary for the erection of a suitable building, and for its subsequent maintenance.

3. The applications for pecuniary aid were most liberally responded to by the general community, and in an especial manner by Sir Jamsetjee Jejeebhoy, who, in addition to a munificent subscription of Rupees 15,000, the estimated cost of the building, bestowed a piece of ground, value Rupees 15,000, suitable for the projected Institution, and situated in the immediate

neighbourhood of the Grant Medical College and Jamsetjee Jejeebhoy Hospital.

4. The Committee felt assured that in desiring to express, in an appropriate manner, the sense which they entertained of this most liberal assistance, they would give effect to the wishes of the general body of Subscribers. They, therefore, requested Sir Jamsetjee Jejeebhoy to allow the Institution to be designated the "SIR JAMSETJEE JEJEEBHOY OBSTETRIC INSTITUTION."

5. To Captain Estridge the Committee are greatly indebted for the plan and estimates of the building, and for the kindness with which he superintended the work during the greater part of its progress. To Captain Tremenheere, and to Captain Cruickshank, the Committee are also under much obligation for the valuable assistance which they have given in completing the works which were left unfinished by Captain Estridge on his departure from India.

6. But while the Committee testify to the generosity of Sir Jamsetjee Jejeebhoy, who placed at their disposal the means of erecting the Hospital, and to the skill, taste, and labour of the Officers of Engineers who planned and executed the work, they must not omit to record at this, the close of their connection with the Obstetric Institution, that it is to the indefatigable Principal of the Grant Medical College, Dr. Morehead, that the public is indebted for suggesting the formation of this important addition to the means of instruction in the noble Institution over which he presides, and this valuable refuge to the poor women of the Presidency requiring medical skill and care in their hour of danger.

It has been he, too, who has watched the progress of the work now completed, and smoothed away any difficulties that have arisen; and for this, as well as for the efficient manner in which he has in other respects conducted the office of Secretary to the Committee, they now convey to him the expression of their warm acknowledgments.

7. The Committee have now the gratification of informing the Subscribers that the building is completed, and ready for the reception of patients, and for the transfer to it of the Dispensary

for women and children, which, with this view, was opened some time since in the Jamsetjee Jejeebhoy Hospital.

8. A list of the subscriptions realized, and a statement of the expenses incurred, are submitted for the information of Subscribers.

The following Resolutions were then successively put to the meeting, and unanimously carried:—

1*st Resolution.*—Proposed by J. Warden, Esq., and seconded by Bomanjee Hormazjee, Esq.—

That the Report which has just been read be approved and adopted.

2*nd Resolution.*—Proposed by Venayek Gungadhur Shastree, Esq., and seconded by J. Warden, Esq.—

That Juggonath Sunkersett, Esq., and Bomanjee Hormazjee, Esq., be requested to examine and audit the accounts.

3*rd Resolution.*—Proposed by Dr. Morehead, and seconded by Juggonath Sunkersett, Esq.—

That the following letter be addressed by the Committee to the Government of Bombay:—

To J. G. Lumsden, Esq.,

Secretary to Government in the General Department.

Sir,

I have the honor, by direction of the Committee of the Obstetric Institution, to transmit the documents noted on the margin, and to submit the following observations for the favourable consi-

1. Proceedings of a Meeting held on the 22nd April 1850, to make arrangements for the establishment of an Obstetric Institution in Bombay.*

* A meeting was held on Monday the 22nd April 1850, at the Library of the Asiatic Society, to make arrangements for the establishment of an Obstetric Institution in Bombay,

Present,

The Hon'ble D. A. Blane, Esq., *President*, in the Chair.

Commodore Lushington, Commander-in-Chief of the Indian Navy; A. S. LeMessurier, Esq., Advocate General; Colonel G. Moore, Military Auditor General; H. Gibb, Esq., Surgeon General; H. E. Goldsmid, Esq., Secretary to Government; Major John Holland, Quarter Master General; Henry Young, Esq., Collector of Customs; J. G. Lumsden, Esq., Secretary to Government; G. J. Blane, Esq., Accountant General;

2. Proceedings of a Meeting of the Committee of the Obstederation of the Right Honorable the Governor in Council.

John Warden, Esq., Judge of the Sudder Adawlut; Juggonath Sunkersett, Esq.; Captain J. G. Forbes, Assistant Military Auditor General; H. P. Malet, Esq., Collector of Land Revenue; Dadabhoy Pestonjee, Esq.; Muncherjee Pestonjee, Esq.; Professor J. Peet; Professor H. Giraud; J. R. Hadow, Esq.; Major J. Swanson; Bomanjee Hormusjee, Esq.; M. Stovell, Esq., Secretary to the Board of Education; Mahomed Ali Khan; M. Larken, Esq., Registrar of the Sudder Adawlut; W. Acland, Esq., Company's Solicitor; A. H. Leith, Esq., Secretary of the Medical Board; Framjee Cowasjee, Esq.; A. Spens, Esq., Senior Police Magistrate; Alexander Burn, Esq., M.D.; Dr. Larkworthy; Dr. Peele; Rev. P. Anderson; Basker Soonderjee, Esq.; Rowjee Juggonath, Esq.; C. Morehead, Esq., M.D.; Dr. H. Miller.

After the Hon'ble Chairman had stated the objects of the meeting, the following letter from Manockjee Limjee, Esq., was read:—"I regret that, in consequence of indisposition, I shall be unable to attend the meeting this afternoon, and take part in the proceedings, as was my wish. I shall watch with the greatest pleasure the successful progress of the Institution, for it is one deserving of the warmest encouragement from the public, and particularly from the native community. I shall be most happy to attend all future meetings, and give all the assistance that may be in my power."

The following Resolutions were then successively put to the meeting, and unanimously carried:—

1st Resolution.—Proposed by Juggonath Sunkersett, Esq., and seconded by Dr. Leith—

That it is generally well known, that, in consequence of the want of skilful professional aid, child-birth among many of the classes of the Indian native community is attended with an amount of mortality, and of subsequent bad health, unknown in countries in which a better system of practice prevails, and in which properly organized means of charitable assistance have been provided.

2nd Resolution.—Proposed by J. Warden, Esq., seconded by Dr. Morehead—

That these evils have to some extent been alleviated in Calcutta and Madras by the establishment of a Midwifery Hospital in each of these cities. That the success which has attended, and the amount of relief which has been afforded, by these Institutions, have fully realized the philanthropic expectations of their founders.

3rd Resolution.—Proposed by J. R. Hadow, Esq., and seconded by Framjee Cowasjee, Esq.—

That it is very desirable that an Hospital should be established, in which the females of the poorer classes of this populous island may be received, comfortably lodged, and carefully attended to, during the period of childbirth and its subsequent dangers, and that this Hospital should be designated the "Obstetric Institution of Bombay."

4th Resolution.—Proposed by Colonel Moore, seconded by Ali Mahomed Khan—

That with the view of giving permanency to the Obstetric Institution, and of ensuring regular and efficient medical attendance, and of giving to Native Medical Students and Nurses the opportunity of acquiring a prac-

tric Institution, held on the 23rd November 1850.*

3. Report of the Committee of the Obstetric Institution, 22nd June 1852.

2. The want of sufficient room in the Jamsetjee Jejeebhoy Hospital for the accommodation of females during child-birth, and the

tical acquaintance with the important art of Midwifery, and thus be the means of extending its advantages to all classes of the community, it is very desirable that the Institution be connected with the Grant Medical College.

5th Resolution.—Proposed by H. Young, Esq., and seconded by Dadabhoy Pestonjee, Esq.—

That a subscription be opened, with a view of raising the necessary funds for building and other purposes. That the names of benefactors to the amount of Rupees 1,000 and upwards, be, with the amount of their contributions, inscribed on a marble slab, to be fixed in a conspicuous part of the building. That to separate Wards, and to the Dispensary, the names of benefactors to the amount of Rupees 3,000 and upwards be given. The name to be inscribed on a marble slab, and affixed above the door of the Ward.

6th Resolution.—Proposed by A. LeMessurier, Esq., and seconded by Muncherjee Pestonjee, Esq.—

That the following gentlemen be appointed a Committee to give effect to these Resolutions:—J. Warden, Esq.; Venayek Gungadhur Shastree; Sir Jamsetjee Jejeebhoy; Dr. Leith; H Young, Esq.; Manockjee Limjee, Esq.; Framjee Cowasjee, Esq.; M. Larken, Esq.; Juggonath Sunkersett, Esq.; W. Acland, Esq.; Mahomed Ally Rogay, Esq.; Bomanjee Hormusjee, Esq.; J. R. Hadow, Esq.; David Sassoon, Esq.; Dr. Stovell; Dr. Morehead; Mahomed Ally Khan, Esq.; Dr. Peele; Dadabhoy Pestonjee, Esq.; A. Spens, Esq.; Cursetjee Jamsetjee, Esq.; with power to add to their number; and Dr. Morehead as Secretary to the Committee.

7th Resolution.—Proposed by Juggonath Sunkersett, Esq., and seconded by Colonel Moore—

That the thanks of the meeting are in an especial manner due to the Hon'ble Chairman for his kindness in presiding on the occasion.

C. MOREHEAD, Secretary.

* *Proceedings of a Meeting of the Committee of the Obstetric Institution, held on the 23rd November* 1850.

The Committee having met, the following letter from Sir Jamsetjee Jejeebhoy was read:—

To C. MOREHEAD, Esq., Secretary to the Committee of the Obstetric Institution.

SIR,—I have to request that you will be good enough to submit to the Committee the following suggestions relative to the establishment of the Obstetric Institution.

2. It has been explained to me, that in order to carry out the objects of the Institution in an effective and satisfactory manner, it is necessary that the building should be erected in the neighbourhood of the Jamsetjee Jejeebhoy Hospital; and I have further reason to believe that part of the ground possessed by me to the north of the Hospital and College compound will be the most convenient situation for it.

want in the Grant Medical College of the means of clinical instruction in Midwifery, were defects in the charitable and educational Institutions of Bombay so serious and so apparent as to

3. Under these circumstances, I beg to submit the following proposals for the acceptance of the Committee :—

1st. I will give so much of the piece of ground, with the houses upon it, which extends in the line of the Parell Road between the northerly side of the Grant College compound and my new tank, as may be required for the purposes of the Institution.

2nd. In addition to my previous subscriptions, amounting to Rs. 6,000, I will contribute a further sum of Rupees 9,000, making an aggregate of Rupees 15,000, for the erection of a suitable building, this being the contemplated cost, as shown by the Civil Architect's plans and estimates.

3rd. The only conditions which I attach to these proposals are, that the Committee will superintend the erection of a suitable building, and make the necessary arrangements for its after management.

4th. I may also add, that it must be distinctly understood that I am not to be called upon hereafter for the payment of any further sum beyond the Rupees 15,000 before mentioned as necessary for the erection of the building; and that after the completion of the building, it must be kept in repair at the expense of the Institution, or of Government.

I have the honor to be, Sir,

Your most obedient Servant,

Bombay, 16th Nov. 1850. (Signed) JAMSETJEE JEJEEBHOY.

Mr. Warden then moved the following Resolution, which was seconded by Dr. Morehead, and unanimously adopted :—

Resolved,—That the Committee accept, with much thankfulness, the very liberal proposals which have been communicated by Sir Jamsetjee Jejeebhoy in the letter which has just been read. That, keeping in view the close relation which must subsist between the Obstetric Institution and the Grant Medical College and the Jamsetjee Jejeebhoy Hospital, the Committee cannot too highly appreciate the generous consideration which has placed at their disposal a valuable piece of ground* adjoining the Hospital and College, and has contributed a sum sufficient for the erection of the building, thus leaving the principal part of the contributions of the general community to be funded and appropriated for the current expenses of the Institution.

That the Committee feel assured that all the Subscribers will cordially concur with them in desiring that there should be some permanent record of this act of munificent philanthropy. They, therefore, resolve to request Sir Jamsetjee Jejeebhoy to permit his name to live in association with these his good deeds, by allowing the new charity to be designated the "Sir Jamsetjee Jejeebhoy Obstetric Institution."

2. The Secretary submitted to the Committee the state of the funds of the Institution. The subscriptions realized, exclusive of the donation of Rupees 15,000 by Sir Jamsetjee Jejeebhoy, amount to Rupees 15,346-7-10. Of this Rupees 10,000 have been invested in the Government 5 per cent. Loan, and Rupees 5,346-7-10 are in cash in the Bank of Bombay.

* The estimated value of the ground and houses is Rs. 15,000.

call for an appeal to Government for their removal. It was felt, however, on further consideration, that the evils were of so pressing a nature as to make it highly expedient to have recourse

Subscriptions to the amount of Rupees 240 are still due. The expenses incurred on account of printing the proceedings of the meeting in English, Marathee, and Guzerathee, and the payment of advertisements and postage, amount to Rupees 88-2-0.

3. The Secretary submitted a plan, with the elevation of the building of the Obstetric Institution, with estimates and tenders prepared by Captain Estridge, the Civil Architect.

The building is to consist of three wards, suitably arranged for the accommodation of twenty-four patients, a room for the Matron, and a waiting and prescribing room, suitable for a dispensary, for the treatment of the diseases of women and children. Outside the wards, on each side, there will be a closed verandah, ten feet wide.

The floors of the wards will be boarded with teak planks; the verandah paved with Porebunder stone; and the plan provides efficient ventilation. The Civil Architect's estimates amount to Rupees 16,948.

Two tenders have been received, one for Rupees 15,011, the other Rupees 14,516.

The Committee approved of the plan and estimates, and

Resolved,—That the best thanks of the Committee be communicated to Captain Estridge, for his kindness in preparing the plan and the estimate, and that he be requested to allow his name to be entered in the list of members of the Committee.

4. The Committee then took into consideration the arrangements for the erection of the building, and

Resolved,—That the following members of the Committee form a Sub-Committee, for arranging the transfer of the ground which has been presented by Sir Jamsetjee Jejeebhoy, and for superintending the erection of the building, which should be commenced without delay :—

J. Warden, Esq.	Captain Estridge.
Cursetjee Jamsetjee, Esq.	Dr. Peele.
Manockjee Limjee, Esq.	Dr. Morehead.

5. It was then proposed by Mr. Warden, and seconded by Dr. Leith—

That the best thanks of the Committee be offered to the Secretary, Dr. Morehead, for the zeal and discretion with which he has realized the means by which so much progress has been made towards the accomplishment of the object of bestowing an Obstetric Institution on the community of Bombay.

(Signed) C. MOREHEAD, Secretary.

Letter from Sir Jamsetjee Jejeebhoy to the Secretary of the Committee.

To C. MOREHEAD, Esq.
Secretary to the Committee of the Obstetric Institution, Bombay.

SIR,—I have the honor to acknowledge receipt of your letter of the 25th instant, handing me copy of a Resolution passed at a Meeting of the Committee of the Obstetric Institution, from which I learn that the Committee have accepted the proposals contained in my letter to your address of the 16th instant.

2. I feel gratified at the wish expressed by the Committee that this In-

to measures more speedily effective than could be accomplished through the instrumentality of Government alone.

3. The nature of these measures, and the results which have attended them, are fully stated in the documents which accompany this letter.

4. The building of the Sir Jamsetjee Jejeebhoy Obstetric Institution has been erected with great care, under the immediate superintendence of Government Officers, and in architectural keeping with the Grant Medical College and the Jamsetjee Jejeebhoy Hospital, to which it adjoins.

5. The Committee are now desirous of making over to the Government of Bombay this building, and the ground upon which it stands, in free gift, on the understanding that it shall be looked upon as an additional ward of the Jamsetjee Jejeebhoy Hospital, built for a special purpose, and that its inmates shall be treated and cared for just as the patients in the other wards of that Hospital are, and that the building shall be kept in repair by Government, just as the rest of the Hospital and the Grant Medical College are.

6. The Committee further propose to pay into the Government Treasury the balance of the funds subscribed by the public, amounting to about Rs. 12,000, to be designated "The Obstetric Institution Fund," in the hope that Government will allow interest at 5 per cent., to be appropriated in defraying the charges for matrons, and other necessary establishment. An annual statement of the account of this Fund to be published in the Appendix of the Grant Medical College Annual Report, in the same manner as the accounts of the other endowments connected with the College.

stitution should bear my name; and I have much pleasure in complying with the request to that effect conveyed in your letter now under reply.

I have the honor to be, Sir,
Your most obedient Servant,
(Signed) JAMSETJEE JEJEEBHOY.

Khandalla, 27th November 1850.

(True copies)
(Signed) C. MOREHEAD,
Secretary.

7. The Committee trust that these suggestions will meet with the favourable consideration and approval of the Right Hon'ble the Governor in Council.

4th Resolution.—Proposed by Bomanjee Hormazjee, Esq., and seconded by Manockjee Limjee, Esq.—

That the Report of the Committee, and the Proceedings of this Meeting, be printed and distributed to the Subscribers.

5th Resolution.—Proposed by Juggonath Sunkersett, Esq., and seconded by J. Warden, Esq.—

That in addition to the tablets commemorative of the sources from which the funds for the establishment of the Institution have been derived, there be also one with the following inscription :—

To Charles Morehead, M.D., Principal of the Grant Medical College, the Public is indebted for the suggestion that this Institution should be provided to the poor of Bombay, and for untiring exertions in superintending its establishment.

6th Resolution.—Proposed by Juggonath Sunkersett, Esq., and seconded by Bomanjee Hormasjee, Esq.—

That the best thanks of the Committee are due to Mr. Warden, for the very active interest which he has taken in the arrangements of the Obstetric Institution, from the period when its establishment was first brought under discussion up to the present time.

C. MOREHEAD, Secretary.

OBSTETRIC INSTITUTION.

DR. *Statement of Account of Subscriptions received and disbursed, from April* 1850 *to the* 15*th June* 1852. CR.

1850	RECEIPTS.					1852	DISBURSEMENTS.				
				Rs.	a. p.					Rs.	a. p.
April 27th	To Amount of Subscriptions received on account of the Obstetric Institution			31,386	0 0	June 15th	By Amount invested for the purchase of Rs. 10,000 in Government Loan at 5 per cent..	Rs. 10,176	6 2		
Sept. 5th	,, Amount of Interest on Government Notes	Rs. 125	0 0			,,	,, Amount paid for the erection of the Building	20,252	0 0		
1851											
Jan. 20th	,, Do. do. do.	250	0 0			,,	,, Amount paid to Mr. J. M. Richardson, 23, Cornhill, London, on account of Instruments purchased for the use of the Institution	301	13 2		
,, ,,	,, Cash received, being value of Materials made over to Haskel Abram, Contractor	500	0 0								
July 22nd	,, Amount of Interest on Government Notes	250	0 0			,,	,, Amount paid for the purchase of Furniture	198	0 0		
1852											
Jan. 13th	,, Do. do. do.	250	0 0			,,	,, Amount paid to Mr. Acland, for the cost of a Plan of the Ground	15	0 0		
				1,375	0 0	,,	,, Amount expended for Postages, Advertisements, and Printing charges, &c.	99	3 8		
						,,	,, Amount of Interest refunded..	0	15 0		
										31,043	6 0
						,,	,, Balance due by the Bank of Bombay to the Obstetric Institution			1,717	10 0
			Rupees	32,761	0 0				Rupees	32,761	0 0

We have examined this Account with the Vouchers, and found it correct.

(Signed) JUGGONATH SUNKERSETT.

,, BOMANJEE HORMASJEE.

(Signed) C. MORRHEAD, Secretary.

(True copy)

C. MORRHEAD, Secretary.

OBSTETRIC INSTITUTION.

Cost of Building.

1851			Rs.	a.	p.	1852				Rs.	a.	p.
Jan. 20th	To Cash received, being value of Materials made over to Haskel Abram, Contractor		500	0	0	June 8th	By Cash paid to Haskel Abram, Contractor, including the value of Materials made over to him as the amount of his Contract	Rs. 18,050 0 0				
April 7th	,, Ditto from Dr. Morehead		1,000	0	0							
May 19th	,, Ditto ditto ditto		3,000	0	0							
June 23rd	,, Ditto ditto ditto		2,000	0	0							
July 28th	,, Ditto ditto ditto		2,100	0	0	,,	,, Amount paid for filling Tank upon receipt from Haskel..	100 0 0				
Oct. 22nd	,, Ditto ditto ditto		1,500	0	0							
1852												
Jan. 21st	,, Ditto ditto ditto		2,500	0	0							
Feb. 20th	,, Ditto ditto ditto		2,000	0	0	,,	,, Ditto for removing earth ditto	42 0 0				
Mar. 31st	,, Ditto ditto ditto		2,000	0	0							
May 31st	,, Ditto ditto ditto		3,192	0	0							
June 8th	,, Ditto ditto ditto		460	0	0	,,	,, Ditto for Maistry ditto	300 0 0				
									442	0	0	
												18,492 0 0
						,,	,, Ditto for Roads, in part					500 0 0
						,,	,, Ditto for Slabs					80 0 0
						,,	,, Ditto to Yadowjee, for Superintendence					300 0 0
												19,372 0 0
						,,	,, Ditto in hand to complete the payment on account of the Work					880 0 0
		Rupees	20,252	0	0				Rupees			20,252 0 0

(Errors excepted)

Bombay, 9th June 1852.

(Signed) J. J. F. CRUICKSHANK, Captain, Engineers.

(True copy)

C. MOREHEAD, Secretary.

Subscriptions received on account of the "Obstetric Institution."

	Rs.
Sir Jamsetjee Jejeebhoy ..	15,000
H. H. the Guicowar of Baroda.	4,000
Juggoonath Sunkersett ..	1,000
Venayak Gungadhar Shastree .	1,000
Manickjee Limjee	1,000
Right Hon'ble Lord Falkland .	250
Hon'ble J. P. Willoughby ..	200
Hon'ble D. A. Blane	200
Sir E. Perry	200
Sir W. Yardley	100
Dr. J. McLennan	200
Framjee Nasserwanjee ..	250
Nasserwanjee Muncherjee Cama.	225
Cawasjee Manuckjee	500
Dunjeebhoy Nasserwanjee Cama.	225
Ramchunder Serjeered . ..	200
Bomanjee Hormasjee.. ..	200
Hon'ble A. Bell .. .	100
Hon'ble J. Warden	100
Dr. C. Morehead	150
Cursetjee Nasserwanjee Cama.	125
Dorabjee Nasserwanjee Cama .	125
H. Cormack	100
R. K. Pringle	100
Meerza Mahomed Ali Khan ..	100
J. R. Hadow	100
Dr. R. DeC. Peele	100
M. Larken	100
Dhunjeebhoy Cursetjee. ..	100
Cursetjee Ardaseer	100
David Sassoon..	100
Curumchund Premchund ..	100
Framjee Cawasjee	100
Dadabhoy Pestonjee	100
Muncherjee Pestonjee.. ..	100
Vukutchund Khoosatchund ..	100
E. Frere	121
Rustomjee Nowrojee Motibhoy	100
Dr. J. Peet	100

	Rs.
A. Malet	100
Col. P. M. Melvill	100
Cursetjee Furdoonjee	100
Dr. H. Leith	50
W. P. Gillanders	20
Dr. J. Scott	50
Dunjeebhoy Framjee.. ..	50
Sorabjee Framjee	50
Dr. J. Kinnis	50
D. McCullock..	25
Chief Magistrate's Office ..	45
Ruttonjee Cursetjee	25
Pestonjee Nowrojee Poncha ..	50
Ruttonjee Pestonjee Bellymorya	25
Mehendarjee Hormasjee Metta.	15
Cummerchund Premchund ..	25
A. Spens	50
Dr. M. Stovell	50
Capt. Lock	15
Capt. C. D. Mylne	20
Capt. R. Phayre	15
Byramjee Heerajee Colah ..	75
Sorabjee Jejeebhoy	50
Byramjee Jejeebhoy	50
Pestonjee Hormusjee Camajee.	51
Ruttonjee Hormusjee Camajee.	51
Hurrychund Lowchund ..	11
Capt. J. H. G. Crawford ..	15
Brigadier James	50
Dr. Montefiore	20
W. H. Reeves..	20
Capt. Sandwith	5
Dadabhoy Hormasjee Camajee	50
Byramjee Hormasjee Camajee	50
Nasserwanjee Bomanjee Mody.	50
Pochajee Framjee & Co. ..	20
Bomanjee Dossabhoy Moonrha	15
Bhaskerjee Soonderjee ..	50
Col. George Moore	50

	Rs.
Cursetjee Rustomjee	50
Ardaseer Cursetjee Dady ..	50
Nasserwanjee Cursetjee Dady.	25
Homjee Cursetjee Dada ..	25
Lieut. C. R. Baugh	5
Kurkusroo Framjee Pattack..	15
Lulfullin Khan, &c.	15
Manuckjee & J. Cursetjee ..	25
Nowrojee Cowasjee Daccoon-walla..	10
Pestonjee Hormasjee's Sons ..	30
Hormusjee Bomanjee.. ..	50
J. Keith..	50
E. L. Jenkins	30
Major J. Ramsay	20
J. H. Peart	50
Muncherjee Hormusjee Camajee	50
Capt. Studdert..	20
Capt. D'Arcy	50
Dr. Bradley	40
Jeewanjee Ruttonjee's Sons ..	11
Pestonjee Framjee Camajee ..	50
Bomanjee Framjee Camajee ..	50
Dossabhoy Framjee Camajee .	50
Jamsetjee Rustomjee Erany..	50
Dr. Maitland	25
Capt. Purvis	5
Dr. Harrison	50
Brigadier Manson	50
Dhinchund Bhichajee ..	51
Lieut. Anderson	15
Lieut. J. H. B. Dennis ..	15
Dr. W. C. Coles	40
Dr. E. Impey	50
H. J. Carter	25
Dinshaw Dadabhoy	25
Heerjee Jehangheer	50
Major Davidson	50
A. LeMessurier	50
W. Acland	50

	Rs.
H. Gibb	50
Capt. H. J. Barr	50
G. J. Blane	25
Succaram Luximon	50
Ardaseer Cursetjee	50
G. H. Walker	25
Lieut. Francis	20
H. B. Lockett	5
Muncherjee Framjee Cama ..	50
Dr. J. Don	25
J. B. Bellasis	13
Edulje Framjee	50
Lieut. Jardine..	10
Major J. Swanson	50
E. Sassoon	25
J. G. Lumsden	50
H. Young	50
Capt. Whitechild	15
L. H. B. Tucker	15
Ramchunder Balcrustnajee ..	83
Messrs. Erskine, Pelly, and Tyrwhitt	35
Messrs. Manson, Hutt, and Reeves	30
Huttasing Kessresing.. ..	99
Lieut. James	10
W. A. Goldfinch	50
Jewajee Manuckjee	50
Burjorjee Manockjee	20
Shapoorjee Dhunjeebhoy ..	50
A. H. Campbell	25
E. N. Campbell	25
H. E. Goldsmid	50
Dadabhoy Cowasjee's Sons ..	25
J. Muspratt	25
A. W. Ravenscroft	25
H. P. Malet	30
A Friend	50
Dr. H. Miller	20
Total....Rupees	31,386

June 1852.

C. MOREHEAD, Secretary.

CIRCULAR

For the information of the Subscribers to the Sir Jamsetjee Jejeebhoy Obstetric Institution.

The following letter has been received from Government, in reply to that of the Committee, already communicated to the Subscribers.

The Committee have authorized the Trustees of the Fund—J. Warden, Esquire, Jugonnath Sunkersett, Esquire, Manickjee Limjee, Esquire, and the Secretary—to close the Accounts, and transfer the Balance to Government.

C. MOREHEAD, Secretary.

September 18th 1852.

No. 2982 OF 1852.

GENERAL DEPARTMENT.

To C. MOREHEAD, Esquire,

Secretary to the Committee of the Obstetric Institution.

SIR,

I am directed to acknowledge the receipt of your letter, dated 28th June last, with enclosures, and in reply to acquaint you, for the information of the Committee of the Obstetric Institution, that the Right Hon'ble the Governor in Council has great pleasure in acceding to the request contained in your 5th para.

2. The Medical Board will be requested to make the necessary arrangements for the care and treatment of the inmates of the Obstetric Institution, in the same manner as for the patients in the other wards of the Jamsetjee Jejeebhoy Hospital.

3. With reference to para. 6, I am directed to intimate that Government are precluded, by the repeated orders of the Hon'ble the Court of Directors, from allowing a higher than the current rate of interest on any sums which they may consent to receive charge of for charitable purposes; but the money will be received

into the Government Treasury at the current rate of interest, and will be applied as you have proposed.

4. The charges incurred on account of the Obstetric Ward of the Jamsetjee Jejeebhoy Hospital, including Establishment, will be defrayed as the charges for Establishment are defrayed in the other wards of the Hospital.

I have the honor to be, Sir,
Your most obedient Servant,
(Signed) J. G. LUMSDEN,
Secretary to Government.

Bombay Castle, 16*th August* 1852.

(True copy)
C. MOREHEAD,
Secretary.

To J. G. LUMSDEN, Esq.,
Secretary to Government.

SIR,

I have the honor, by direction of the Committee of the Sir Jamsetjee Jejeebhoy Obstetric Institution, to acknowledge the receipt of your letter No. 2982, dated the 16th August, and to acquaint you, with reference to the 3rd para., that the Balance of Funds amounts to Rs. 12,487-14-0, and to request that the General Treasurer may be authorized to receive the same from the Secretary to the Bank of Bombay.

I am, in conclusion, directed to express the obligations of the Committee for the readiness with which their wishes have been met by the Right Hon'ble the Governor in Council.

I have honor to be, Sir,
Your most obedient Servant,
C. MOREHEAD,
Secretary to the Obstetric Institution.

Bombay, 30*th October* 1852.

To J. G. LUMSDEN, Esq.,
Secretary to Government.

SIR,

I have the honor, by direction of the Committee of the Sir Jamsetjee Jejeebhoy Obstetric Institution, to inform you that since my last letter to your address, dated 30th October, there have been two hundred Rupees* more added to the Balance of Funds of the Obstetric Institution, making the sum altogether Rupees 12,687-14-0, which I beg the Treasurer may be authorized to receive, instead of the former sum, Rupees 12,487-14-0.

I have the honor to be, Sir,
Your most obedient Servant,
C. MOREHEAD,
Secretary to the Obstetric Institution.

Bombay, 4th December 1852.

* Subscription from R. Camajee, Esq., Canton.

No. 26.

Bombay Castle, 7th December 1852.

Received into the Hon'ble Company's Treasury, from C. Morehead, Esq., Secretary, the sum of Company's Rupees twelve thousand six hundred and eighty-seven, and fourteen Annas, on account of Obstetric Institution Fund.

(Signed) J. W. MUSPRATT,
Sub-Treasurer.

Co.'s Rs. 12,687-14-0.

To J. G. LUMSDEN, Esq.,
Secretary to Government.

SIR,

With reference to the correspondence regarding the Sir Jamsetjee Jejeebhoy Obstetric Institution, I have the honor to

transmit the Deed of Assignment of the Ground for custody in your Office.

I have the honor to be, Sir,
Your most obedient Servant,
C. MOREHEAD,
Secretary.

Bombay, 13th December 1852.

No. 4591 of 1852.

GENERAL DEPARTMENT.

TO THE SECRETARY TO THE COMMITTEE OF THE OBSTETRIC INSTITUTION.

SIR,

I am directed to acknowledge the receipt of your letter of the 4th instant, and of the Deed which accompanied it.

I have the honor to be, Sir,
Your most obedient Servant,
J. G. LUMSDEN,
Secretary to Government.

Bombay Castle, 31st December 1852.

APPENDIX Y.

REMARKS ON MEDICAL EDUCATION, WITH AN ACCOUNT OF THE SYSTEM OF CLINICAL INSTRUCTION AND EXAMINATION FOLLOWED IN THE GRANT MEDICAL COLLEGE AT BOMBAY.

The importance of an efficient system of Medical education, with reference both to the recent establishment of Medical Colleges in British India and the state of the Medical Profession in the United Kingdom, renders it very desirable that there should be no backwardness, on the part of those who have had opportunities of dispassionately considering the subject, in communicating, for the information of others, the result of their observation, reflection, and experience.

It will, it is believed, be universally admitted, that no system of Medical education can pretend to efficiency or completeness which does not include, as one of its essential conditions, a systematic and carefully conducted plan of Medical and Surgical Clinical instruction; and that no plan can be so characterized which does not require from each Student at least two years' regular and attentive attendance in well-arranged Medical and Surgical Clinical Wards, conducted by competent and pains-taking Clinical instructors, in an hospital sufficiently large to command a varied selection of medical and surgical diseases. Each Student should, moreover, for a certain period, be employed in the careful and assiduous performance of the duties of Clinical Clerk and Surgical Dresser.

But it is not sufficient that well-arranged systems of instruction be laid down for Medical schools. The protection of the community, and the character of the Profession, require that the test of

examination should be also applied; and it may be very safely affirmed that no examination which has in view to test ability to practice Medicine and Surgery can be satisfactory or adequate unless it be conducted at the bedside of the sick in the clinical wards of an hospital.

There is abundant evidence to show that, for the most part, in the Medical Schools of the United Kingdom, Clinical instruction is imperfect; and that the tests of ability to practise applied by examining Boards are altogether insufficient. It is true that the wards of Hospitals are open to Medical Students, and that a certain period of Hospital attendance is required by examining Boards, and that therefore the industrious and intelligent Student has the opportunity, by a course of self-instruction, of acquiring some practical knowledge of the phenomena of disease and the action of remedies. But it would seem that the instances are few in the Medical Schools of the United Kingdom in which suitable means are adopted for ensuring regularity of attendance, and the profitable use of the time passed in the Hospital wards; and that the instances are also few in which a system of instruction is followed by Clinical teachers calculated to sustain the attention, guide the observation, and exercise and mature the judgment of the Student, while considering the phenomena of disease at the bedside of the sick. It need hardly be observed that the industrious, intelligent, and self-educating, form always but a small proportion of a body of Students; and no system of education can be considered good which has reference merely to them, or which is satisfied with the Students' own unaided efforts.

If it be true that in the United Kingdom the Clinical department of Medical education be, for the most part, defective, and that examining Boards do not exact sufficient proof of practical ability, on the part of those whom they authorize to exercise the Profession of Medicine, we can be at no loss for an explanation of the undoubted fact that, taken as a whole, the Medical Profession does not occupy in these countries that place in public estimation to which its nature and its objects truly entitle it; nor can we have any difficulty in understanding how it is that

its domain is not unfrequently successfully invaded by exclusive and unphilosophical systems, and that apostates from its ranks are sufficiently numerous. How, it may be inquired, can other results than these be looked for, when a large proportion of those who have been pronounced qualified to follow the Profession of Medicine have avowedly not been properly instructed in the means of doing so, and have not been required to show proof of their capacity ?

It cannot, therefore, I apprehend, be questioned, that the first step towards placing the Medical Profession in its true position, and neutralizing the influence of erroneous systems of practice in European countries, ought to be the enforcement of efficient Clinical instruction and Clinical examination.

If these views be correct of countries in which a scientific system of Medicine has long existed, it must be very evident that when the question of the introduction of the Profession of Medicine into a new country, as India, is under consideration, Clinical instruction and Clinical examination must necessarily command a large share of attention in the system of education by which this object is sought to be effected. Nor can it be too distinctly affirmed that unless these essential conditions of Medical education be conscientiously enforced in our Indian Medical Colleges, and by our Indian examining Boards (*i. e.* unless the most perfect assurance be given that the certificate of ability to practise Medicine and Surgery is never given except to those who are really practically capable), the Profession of Medicine cannot be made acceptable to the people of India ; indeed, the attempt to introduce it as practised by really qualified men in European countries will not have been truly made.

A strong conviction of the truth and paramount importance of these principles has regulated the system of education and test examination observed in the Grant Medical College, from the time of its institution up to the present period. It may be, therefore, useful to the cause of Medical education generally to state the means by which it has been endeavoured practically to apply these principles.

As my present object is not to suggest a method of Clinical

instruction and Clinical examination likely to prove useful, but to detail one which has already been for several years in successful operation, I shall best effect this by extracting from the official Reports of the Grant Medical College those passages which relate to Clinical instruction and Clinical examination :—

Clinical Medicine.—In the Report of the 3rd year of the College, the Session 1848-49, the method of Clinical instruction is explained in the following manner :—

"Thirteen Students have attended the course of Clinical Medicine, and of these seven have officiated in rotation as Clinical Clerks. * * * * * * * *

"As this is the first Session in which Clinical Medicine has been taught in the College, it is expedient that I should explain the system of instruction which has been followed.

" The Jamsetjee Jejeebhoy Hospital is adapted for the accommodation of 240 males and 60 females, and the number of sick annually treated has hitherto amounted to about 3,700 in-patients, and 5,400 Dispensary out-patients. One ward of this Hospital, with accommodation for 20 sick, was set aside as a Clinical Medical Ward. The Professor of Medicine daily examined all the patients admitted into Hospital in the course of each day, and selected those Medical cases most appropriate for the instruction of the Students, and sent them to the Clinical Ward. This ward was visited daily at 7 o'clock A. M., and the Professor and the Students were engaged in it till 8 o'clock, and sometimes to a later hour. The cases of the patients were, on admission, taken by the Clinical Clerks, of whom there were always four on duty. The statement of the case was corrected by the Professor, then read to the Students by the Clinical Clerk, and the subsequent daily reports and prescriptions were dictated by the Professor, at the bedside of the sick, and written down by the Clerks in the College and Hospital Diaries, and also by those other Students who were keeping cases on their own account. The opportunity was frequently taken, during the morning visit, of pointing out and explaining to the class the symptoms of interest, and the indications of cure in the diseases before them, and also of interrogating them on the

course of treatment pursued, and of inviting them to offer suggestions in regard to it. The circumstance of the great proportion of the patients being ignorant of the English language gives a facility in conducting Clinical instruction in this manner, at the bedside of the sick, to an extent not generally available in Medical Schools. These Clinical conversations and interrogations at the bedside of the sick will, I believe, prove more instructive to the Students than the formal Clinical Lectures delivered in the College. I have reason to hope, that as the Students increase in knowledge, and acquire a greater familiarity with their duties as Clinical Clerks, there will be more scope for this kind of instruction, and yet no necessity for decreasing the number of patients under treatment at one time in the Clinical Ward.

"In addition to instruction communicated as now explained, 33 Clinical Medical Lectures were delivered in the College; and in conducting these Lectures the following system was observed. All the cases discharged from the ward during the interval between the Lectures were made the subject of comment. They were grouped according to the nature of the disease, and it was not unusual to preface the practical remarks suggested by the cases by a short recapitulation of the characteristic features of the disease of which the cases were instances. Sometimes, instead of a formal Lecture, the points of practical interest in the cases were brought forward through interrogation of the Students. This occasional substitution of examination for Lecture in the Clinical course has the double advantage of keeping alive the attention of the Students, and of giving the Professor a better idea of the degree to which he has succeeded in carrying the Students along with him in their practical studies.

"In Appendix E will be found still further details* regarding the course of Clinical Medicine. These have been given with the view of showing the nature and extent of the practical studies in which the Students have been engaged in Medicine during the past Session."

* Embodied in a subsequent part of these observations.

In the Report of the 4th year of the College, Session 1849-50, it is observed of Clinical Medicine :—

" The same Students who attended the course of the Practice of Medicine have daily followed that of Clinical Medicine.

" In the last Report of the College the arrangements of the Clinical Ward, and the manner in which the patients were selected from the general wards of the Hospital, were fully explained. A similar system, in these respects, has been observed during this Session.

" The greater proficiency of the Students has admitted of considerable modification of the manner in which the duties of the ward have been conducted. Instead of the daily reports being dictated by the Professor, they have been previously prepared by the Clinical Clerk, and have been read by him at the bedside of the patient. The statements made in them have been then scrutinized by one or two of the attendant Students, at the request of the Professor, with the view of testing the accuracy of the reports, and of correcting defects which may be apparent in the Students' manner of examining the sick.

" The Clerk has then been required to suggest the treatment, to propose a prescription; and the other Students have been encouraged to state objections, and propose amendments, should any occur to them.

" The advantages resulting from these modifications have been, that the time has not been taken up in dictation and writing, but wholly occupied in observing and reasoning on the phenomena of disease. By means of conversation, explanation, interrogation, the attention of the Students has been kept more fixed and interested, and their powers of observation and reflection more carefully exercised. These objects, most important to keep in view in the education of all youth, are more especially necessary in regard to those who have not had the advantage of that early mental discipline and training which is the privilege of the young of the educated classes of other countries. While the Students have been encouraged to express themselves freely in regard to what they observe in the ward, it has been impressed upon them that they are only expected to do so after they have

carefully observed and reflected. No countenance has been given to frivolous questions and remarks.

"The thirteen Students who are in the 4th year of their studies, and one of the 3rd Year Students, Narayan Dajee, have, in rotation, officiated as Clinical Clerks, and the following nine may be mentioned as those of them who have conducted the duties with the greatest efficiency, assiduity, and attention to the wants of the sick :—Mr. Carvalho, Atmaram Pandurung, Bhao Dajee, Merwanjee Sorabjee, Mr. Gomes, Mr. Lisboa, Muncherjee Sorabjee, Anunta Chundroba, and Narayan Dajee.

"Many of the Students have also assisted in conducting the duties of the Dispensary for out-patients—the seniors in prescribing for some of the sick, under the superintendence of Dr. Peet and Dr. Giraud; the juniors in registering the names of the patients, and in dispensing medicines.

"In addition to the daily Clinical instruction in the Hospital, 33 Lectures have been delivered in the College on the cases treated in the ward. Sometimes, indeed, the consideration of the cases has assumed more the character of interrogation of the Students than of a formal Lecture; and probably in future Sessions it will be found expedient to give still more of the time in these weekly meetings in the College to examination in the Practice of Medicine, and to restrict Clinical instruction to its only true arena, the bedside of the sick. It has already been explained in a former report, that as few of the patients understand English, those difficulties which stand in the way of conducting Clinical instruction in Medical Schools, when the teacher and the sick speak the same language, are not experienced here; and that it is incumbent on us to turn these advantages to the fullest account.

"In Appendix E will be found a tabular statement of the diseases which have been under treatment in the Clinical Ward, from which some judgment may be formed of the opportunities which the Students have enjoyed of becoming practically acquainted with disease. This statement, however, by no means exhibits the full extent of these opportunities. Asiatic cholera and small-pox have prevailed extensively during the Session, and

the assiduous Students have not failed to direct their attention to the practical study of these formidable diseases."

In the Report of the 5th year, Session 1850-51, it is observed of Clinical Medicine :—

"The Students who attended the course of Practice of Medicine have also followed that of Clinical Medicine, and have in rotation officiated as Clinical Clerks. The Student Apprentices have also in rotation attended the Clinical Ward.

"The system of Clinical instruction has, during the Session, been conducted daily in the Hospital in the following manner, and has occupied always an hour, sometimes more, exclusive of *post-mortem* examinations, which have been made at other periods of the day, and have not been permitted to encroach upon the time devoted to the other objects of the course.

"The cases and daily reports have been taken by the Clerk, then read, scrutinized, confirmed, or corrected, before the Professor and the Students, at the visiting hour. The pathology and the daily treatment of each case was made the subject of interrogation and conversation at the bedside of the patient ; and after the treatment was determined, the prescriptions were dictated by the clerk in charge of the case to the superintending clerk of the ward, by whom they were written in the Ward Dispensing Book.

"In addition to the daily Clinical instruction in the ward, 33 Lectures have been delivered in the College on the cases. Eight of these Lectures during this Session were allotted to a detailed consideration of the diseases of the skin—an important subject, which time did not admit of being sufficiently treated of in the course of Practice of Medicine.

"Appendix E exhibits a tabular statement of the diseases which have been treated in the Clinical Ward, and a note is added to show the number of the different classes of diseases treated in the other wards of the Hospital, and in the Dispensary out-patients—these being sources of practical instruction which have also been open to the Students of Clinical Medicine and Surgery."

In the report of the 6th year, Session 1851-52, it is observed of Clinical Medicine :—

"The Students who attended the Lectures on the Practice of Medicine have also followed the course of Clinical Medicine.

"The system of Clinical instruction has been already so fully explained in the three last Reports of the College, that it is unnecessary to say more at present than that during the past Session it has been conducted with the same regularity and care.

"Appendix I exhibits a tabular statement of the diseases which have been treated in the Clinical Ward. There is also appended to it a memorandum which shows the number of the different classes of disease treated in the other wards of the Hospital, and in the Out-patient Dispensary."

In conducting the Clinical course during the last Session, 1852–53, the system, as detailed in the extracts from the latest Reports, has been carefully carried out, with the addition that before the selection of patients for the ward was commenced certain preliminary subjects, which had hitherto been treated of in the College Lecture Room, were considered in the Hospital.

The object of Clinical study was explained, the nature of symptoms was brought to the recollection of the Students, and the importance of familiarity with the symptoms and physical signs of health, and of precise knowledge of the anatomical relations of internal organs, and of these to readily recognized external parts, was inculcated. The anatomy of the several organs of the chest and the abdomen, and their relation to external parts, were recapitulated. The symptoms and physical signs which indicate a healthy state of the functions of these organs and of the nervous system were then stated, and both these subjects were illustrated, as far as practicable, by reference to a healthy hospital attendant, who was present.

A general notice was then taken of the nature of the symptoms and physical signs which indicate disease of the organs of the chest and abdomen, and of the nervous system.

Six or seven days were occupied in these inquiries. The subjects were treated very systematically, and as practically as possible; and were from time to time reverted to during the progress of the course. I shall in future always introduce the subject of Clinical instruction in this manner.

In further explanation of the method of Clinical instruction followed in the Grant College, I would observe that a certain plan of case-taking and reporting has been carefully attended to.

In drawing up a memorandum* for the guidance of the Students, I have endeavoured on the one hand to guard against superficial and careless observation, and on the other to avoid a system which aims at a minuteness and variety of detail beyond the capacity of many Students, and not compatible with the circumstances of ordinary medical practice; and which, moreover, I cannot help thinking, tends to withdraw the attention of ordinary minds from the prominent points of a case, and to fix it on subsidiary, and, as regards treatment, unimportant detail. I would not, however, wish to be supposed, from these observations, to undervalue the patient and minute investigation of disease. I merely desire to express my belief that the system in question is not the best suited for the general purposes of useful Clinical instruction, or the capacity of the great body of Medical Students and Medical Practitioners.

In conducting the duties of the Clinical Ward, it has always been an object to enforce regularity of attendance, by roll-call at the commencement of the visit; also to maintain the attention of the Students by questioning, sometimes one, sometimes another,

* 1st. To record the objective symptoms and signs (*i. e.* those of which the observer himself becomes cognizant).

2nd. To record the subjective symptoms (*i. e.* those described by the patient).

3rd. To record the history of the case.

1st. Objective Symptoms and Signs.

Condition of the patient, expression of countenance, state of the surface, pulse, symptoms relating to the nervous system. *Chest:* Respiration, physical signs of lungs; heart, action, physical signs. *Abdomen:* Physical signs. Tongue, &c.

2nd. Subjective Symptoms.

Nervous System: Sleep, headache, &c. *Chest:* Pain, cough, expectoration, palpitation, decubitus. *Abdomen:* Pain, appetite, vomiting, distension; action of bowels; secretion of urine, &c.

3rd. History.

Origin of illness, duration, symptoms and order. *Cause:* Previous illnesses, residence, occupation, habits.

without reference to any order, on the symptoms, the pathology, or treatment of the case under consideration. Then, perhaps, to ask some question on Anatomy, Physiology, Materia Medica, or Pharmacy, which the conversation held on the case under observation may incidentally have suggested, and which may serve to keep before the mind the relation between these subjects and Clinical studies.

It has also been the frequent practice, after the treatment of the case has been determined on, to require some Student, not the Clerk in charge, to dictate the prescription to the superintending Clerk. In this way the attention of all has been kept alive.

As further connected with the important subject of Clinical instruction, I have always felt it to be part of the duty of a Clinical Teacher to take care that the manner of those engaged with the sick, and all the arrangements relative to their treatment, should be characterized by a spirit of humanity, by a strict regard for their feelings, and a reasonable one for their prejudices.

The Teacher must, therefore, be watchful of his own manner and bearing towards the sick.

It has been my practice to require the Students to examine and interrogate the patients before me, not only with the view of instructing them in the right method of observing, but also with that of correcting defects in their general manner and bearing towards the sick.

This observance, trifling though to some it may seem, is not an unimportant part of Clinical instruction, for its tendency is practically to inculcate the importance of a much neglected part of medical practice—I mean the treatment and management of the mind of the patient. Inattention to this duty has done much to lessen the efficiency of the regular Practitioner of Medicine; and attention to it may explain, to a certain extent, the success that may attend the arts of the empiric.

The Students are engaged in Clinical studies during three of the five years that comprise the College curriculum, and during that time officiate about twelve months as Clerks.

I have annexed to these observations a tabular statement, showing the number and forms of disease admitted, after careful

selection, into the Medical Clinical Ward during three Sessions. They amount to 622, and constitute the means of Clinical instruction available to the Student during his curriculum.

As it was the invariable practice to make each case which was received into the Clinical Ward the subject of practical comment, a reference to the list will show that there has been ample opportunity of demonstrating to the Students, in the course of their Clinical studies, many important practical facts relative to varied forms of disease.

There has been, it will be observed, a good deal of variety in the malarious fevers, depending upon the different stages of disease at which the individuals came under treatment, as well as in the circumstance of the fevers being complicated with much variety of local disease.

The subjects of these febrile diseases were, moreover, of different classes of the community, who had been exposed in different degrees to the predisposing and exciting causes of disease. In making Clinical observations on these cases of fever, the causes, as well as the treatment of the disease, underwent consideration; and no opportunity was lost of impressing upon the Students the varied and constantly changing indications which it is necessary to keep in view in the treatment of each instance of the disease—modifications depending on the constitution and age of the individual, the stage and duration of the disease, and the nature of the local complication. Much pains have also always been taken to inculcate upon the Students the great error of the too common popular belief that all fevers are alike, and amenable to one general system of treatment.

The list also shows that the Students have had a fair opportunity of practically considering many important abdominal diseases, as hepatitis, abscess of the liver, dysentery, peritonitis. The many instances of Bright's disease of the kidney not only afforded the means of discussing the pathology of this important organ, but also of, from time to time, reviewing the whole subject of dropsical diseases.

The field of study of diseases of the chest far exceeded my expectations, and has afforded ample means of frequently

demonstrating and practically explaining the physical signs of all the important diseases of the lungs, as well as of the heart and aorta.

There has also been a fair opportunity of studying many of the diseases of the nervous system.

Though the Students have had their attention chiefly confined to the selected cases in the Clinical Ward, yet the occurrences of practical interest in the other wards of the Hospital have not been lost sight of; for example, during the period to which the Clinical list of patients refers there were treated in the Hospital, of small-pox 91 cases, of tetanus 115, of cholera 687. The Students were encouraged to watch the course of these important diseases in the different wards, and thus acquired a practical acquaintance with them, much greater than could have been gained from the Clinical Ward alone.

Of the 622 cases treated in the Clinical Ward, 104 terminated fatally.

As in by far the greater proportion of cases a careful examination of the body after death has been made, and the morbid appearances pointed out and explained, both in relation to the symptoms during life and the train of diseased processes, it must also be evident that the Students, in their course of Clinical study, have had the advantage of becoming familiar with many of the important facts of morbid anatomy.

Clinical Surgery.—Having now explained the manner in which Clinical Medicine has been taught in the Grant Medical College, I proceed to state that which has been followed in respect to Clinical Surgery, premising that the visit in the Surgical Ward has always been at a different hour from that of the Medical one; so that the Student, throughout his three years of Clinical study, has had the advantage of daily attending both wards.

In the Report of the 3rd year of the College, Session 1848-49, it is observed:—

"The Professor of Surgery has submitted the following Report of the course of Clinical Surgery:—

"'Clinical Surgery has been taught in the College and Hospital.

The plan followed in the College has been to select two or more of the most interesting cases admitted during the week, to read over to the Students in the Lecture-room the notes of these cases, and afterwards, both by question and explanation, to endeavour to bring the chief points of interest prominently under their notice.

"'In the Hospital one ward, capable of accommodating twenty patients, has been set apart as the Clinical Surgical Ward. The patients received into this ward have, as a general rule, been selected by myself from the daily Hospital admissions. Four Students in rotation have been appointed Dressers for periods of three months, and a certain number of patients have been placed under the care of each Dresser. Notes of all the cases have, with a few exceptions, been taken by the Dressers on admission. At the Hospital visit, the notes thus taken have been read over at the bedside of the patients, and all necessary alterations and additions made. The case was then carefully copied by the Dresser, to whom the charge of the patient had been entrusted. In like manner, notes of the progress of each case have been dictated at the bedside of the patient, during the visit. The greater number of the fractures after their first adjustment have, under my superintendence, been managed by the Dressers; and all the wounds and ulcers have been regularly dressed by them. Opportunities have been taken, so far as time would permit, of pointing out to the Students the more prominent changes observed in each case; and, by question and conversation, attempts have been made to render the impression as fixed as possible. On a careful review of the progress made during the Session, I feel little hesitation in expressing my belief that it has been quite equal to what might reasonably have been expected, when the number of other subjects which required a share of attention is kept in mind.'

"A table of the diseases treated in the Clinical Surgical Ward forms Appendix G, and a list of Surgical operations performed in the presence of the Students forms Appendix H of this Report."

In the Report of the 4th year of the College, Session 1849-50, it is observed:—

"*Clinical Surgery* has been taught during this Session in the same manner as was explained in the Report of the preceding one.

"*Minor Surgery.*—The Professor reports that the opportunities of acquiring facility and neatness in the performance of the minor Surgical operations, and in the application of splints and bandages, have been considerable, as will appear from a reference to the list which forms Appendix H. He is, moreover, favourably impressed with the capability possessed by the Students generally of attaining a considerable amount of dexterity in these manipulations; and is not without hope that the arrangements of the ensuing Session will admit of a still more close and systematic attention being paid to this branch of Surgery.

"A table of the injuries and diseases treated in the Clinical Surgical Ward will be found in Appendix J, and Mr. Peet remarks that the number has been quite sufficient for the illustration of the greater number of his Surgical Lectures; and that, with perhaps one or two exceptions, the Students have shown every disposition to avail themselves fully of the information they were calculated to afford.

"The list of capital operations performed in the presence of the Students forms part of the same Appendix J."

In the Report of the 5th year of the College, Session 1850–51, it is observed of Clinical Surgery :—

"The system of instruction in the Clinical Ward was very similar to that of former Sessions. The tabular statement which forms Appendix G shows the number and nature of the Surgical diseases which have been under treatment in the ward during the Session. The greater number of the fractures treated in the Hospital have been entirely managed, as regards the application of bandages and splints, by the Dressers, by whom also cases of all patients admitted into the Clinical Ward have been regularly kept.

"Of the minor operations of Surgery a large proportion have been performed by the Students themselves, under the superintendence of the Professor. In Appendix H will be found a table of the operations performed. It exhibits the opportunities

which the Students have had of acquiring neatness and dexterity in this very essential part of the practice of Surgery.

"Upon the day set apart weekly for instruction in Clinical Surgery in the College, the cases of interest treated during the week were brought under notice, and the Surgical operations that had been performed were made the subject of comment; and this course of instruction was in general carried out more in the way of conversation than of formal Lecture."

In the Report of the 6th year of the College, Session 1851-52, it is observed :—

"The list of diseases treated in the Surgical Ward, and the operations performed, will be found in Appendix J.

"The system of instruction has been the same as that of preceding years, and is already fully explained in former Reports."

With the view of illustrating the means of instruction in Clinical Surgery in the College, a statement of the number and forms of diseases admitted into the Clinical Surgical Ward during the same three Sessions, with a list of the operations performed in the presence of, and partly by, the Students, is annexed.

Of the three years during which the Students are engaged with Clinical Surgery, each Student officiated about ten months as Dresser.

Regularity of attendance is enforced by roll-call, as in the Clinical Medical Ward.

Diseases of the Eye.—The Dispensary for the treatment of these diseases is in the same compound with the Grant College and Jamsetjee Hospital, and the Students in their 5th year have in rotation attended the practice of the Institution, and profited by the instruction of the Oculist. As it is in contemplation to connect the Officer in charge of this Dispensary with the College, a more systematic Clinical course of instruction, in these forms of disease, will then be arranged.

Vaccination.—The office of the Presidency Vaccinator is also in the College compound, and the Students, therefore, enjoy the means of becoming practically acquainted with the appearance and course of the Vaccine disease. This advantage is of some importance at the present time, when the spread of vaccination

in India, and the best means of effecting it, is under the consideration of the Government.

Clinical Midwifery.—In this department instruction in the Grant College has been hitherto defective. A Lying-in-Hospital has, however, been lately built in the compound of the College, and is now open for the reception of patients; and a distinct Dispensary for the treatment of the diseases of women and children has been also established. Both these Institutions are under the immediate management of the Professor of Midwifery. There is, therefore, every reason to hope that the department of Clinical Midwifery will soon become as efficient as those of Medicine and Surgery.

Manner in which the Diploma Examinations have been conducted.

The detailed arrangements have been always publicly notified, and the attendance of those interested has been invited. The Examination in Chemistry, Anatomy, Physiology, and Materia Medica has been conducted by the Principal and Professors of the College. One day has been given to each subject for written examination, and one to each subject for oral examination—that is, four days have been given for the written examinations, and four for the oral examinations. The latter have always been conducted with formality by the Professor of the subject under examination, in the presence of the Principal and the other Professors; each Candidate has been separately examined, and half an hour has been usually allotted to the oral examination of each Student in each subject. Notes are made during the examination, and at its close the result (qualified or not qualified) is determined.

In the subject of Anatomy there has been also a day given to dissection. Each Candidate has been required to dissect a part of the body, and to demonstrate his dissection.

In the subject of Chemistry there has been practical examination in the Laboratory in the analysis of substances, and into the dexterity of the Candidates in the manipulations of practical Chemistry.

In the subject of Materia Medica there has been also examination in the Dispensary of the Hospital. Each Candidate has been required to read three prescriptions, and to compound them in the presence of the Examiners.

Students may present themselves for examination in these subjects at the end of their 3rd year, and those who are successful receive a Certificate, to which the designation "First Examination Certificate" is given.

Final Examination.—The examination in Medicine, Surgery, Midwifery, and Medical Jurisprudence has been conducted by a Board of four Medical Officers nominated by Government, and unconnected with the College. They have been designated Government Examiner and Assessors. Candidates for this examination require to be provided with the "First Examination Certificate," also a Certificate from the Principal of the College, showing the period of attendance in the College, the length of time of officiating as Clinical Clerk and Surgical Dresser, and setting forth the character of the Candidate for regularity of attendance and propriety of demeanour.

The nature of the final examination, and the manner of conducting it, will be best explained by extracts from the reports made by Dr. McLennan, the Government Examiner, to Government.

In the report dated 18th April 1851 it is observed :—

"The Examinations commenced on the 25th March, when the nine following 'Candidates for Diploma of Graduate,' who had obtained the 'First Examination Certificate,' presented themselves :—

* * * * * * * *

* "The mornings of the first three days, and of four subse-

* In the report of the 4th year (1849-50) of the College, when as yet no Student was qualified for final examination, under the head "Examination for Honors," it is observed :—"In this (the Prospectus) it will be observed that one day was alloted for Clinical examination in Medicine and Surgery at the bedside of the sick in the wards of the Hospital. This course was followed with the view of testing the real practical acquaintance with Medicine and Surgery possessed by the Students.

"Such a mode of examination should, it may be with safety affirmed, be

quent days, on which there were no other duties to be done, were taken up with Clinical examinations, and in hearing the reports of cases taken at the bedsides of patients in Hospital. On these subjects, as regarded Medicine, Surgery, and the diseases of females, the Candidates generally acquitted themselves to my perfect satisfaction.

"The fourth day's examination was taken up by the Candidates in answering in writing, without assistance, the questions contained in printed paper marked A.* They were allowed from 11 A. M. to 5 P. M. to answer the questions, had no access to books, and were not allowed to communicate with each other. I was present during the whole time.

" The fifth day's examination was similarly conducted, in answering the questions contained in printed paper marked B.†

adopted in all instances when the object is to ascertain the extent to which a capacity has been really acquired of practically applying the sciences of Medicine and Surgery."

* A.

1st. Distinguish the treatment of inflammation of the contents of the cranium from that of delirium tremens, and show how remedies applicable to the one disease are inapplicable to the other.

2nd. State the different effects of tartarized antimony, mercury, and nitrate of potash, when prescribed in acute inflammation.

3rd. With what pathological conditions is blood in the sputa connected?

4th. Mention the various proximate causes of jaundice, and describe the symptoms which arise from the passage of gall-stones; likewise state what is the principal constituent of bile, and what of biliary calculi.

5th. State what are the principal abnormal conditions of the urine, and how they are distinguished.

6th. Enumerate the varieties of colic; explain the cause and treatment of each.

† B.

1st. What are the immediate, and what the consecutive bad effects of concussion of the brain, when severe; and what is the treatment of such an injury in its various stages?

2nd. When an aneurismal tumour in the lower extremity is rapidly formed, yet causes no immediate risk to life, ought it to be operated for immediately, or should some delay be allowed to occur? State the reasons

As the papers were only printed on the evening of the day before each examination, and as the forms of types were instantly broken up, their contents were quite unknown, excepting to the examiners.

"The sixth day was occupied with the oral examination of the Candidates in Medicine. Each Candidate was examined separately, for periods varying from 45 to 25 minutes. The examination was conducted by myself and the Assessors, consisting of Surgeon M. Stovell, European General Hospital, Surgeon Watkins, Civil Surgeon, and Assistant Surgeon Campbell, Superintendent Lunatic Asylum, and quite independently of any aid from the Principal and Professors, who, though present, took no part in the proceedings. Those Candidates whose written replies to the questions were least satisfactory were first examined, and were detained under examination for the longer period; and those whose replies, both written and oral, were quite satisfactory, were only detained the shorter period.

"The subjects on which the Candidates were questioned were—fevers and their sequelæ; diseases of the abdominal contents,

for or against the immediate performance of the operation, and mention from which line of conduct in a speedily developed aneurism most success might be reasonably expected.

3rd. Describe the difference of practice as to performance of amputation in the case of gangrene in a limb, between the gangrene arising from constitutional causes, and that arising from external injury. Enumerate the kind of injuries of limbs which would be likely to be followed by traumatic gangrene.

4th. When the urine cannot be voided through the natural passage, from the presence of stricture, what operations may be necessary for drawing it off; and what are the reasons which would induce you to give the preference to one mode or to another.

5th. What are the peculiarities of congenital hydrocele? What its occasional complications, and what its treatment?

6th. Mention the circumstances necessary to be attended to in the use of chloroform in Surgical operations, and the cases in which its use is contra-indicated, with the reasons for its inadmissibility, independently of cases connected with operations; enumerate some other Surgical cases in which advantage may be derived from the induction of anæsthesia by the inhalation of its vapour.

more particularly of the liver, stomach, and intestines ; dysentery ; diarrhœa in adults and in children ; small-pox ; endermic application of medicines ; diseases of heart and lungs ; rheumatism, gout, scurvy ; diseases of head and spinal cord, apoplexy, meningitis, &c. &c. hysteria, chorea, chlorosis, melæna ; croup, laryngitis, diphtherite ; dropsies, renal, cardiac, and other forms ; scarlatina ; diseases in which mercury is contra-indicated ; diabetes, albuminuria, and other diseases of kidney ; diseases of bladder and abnormal conditions of the urine ; diseases arising from intemperance ; scirrhus of stomach and pylorus ; cirrhosis, fatty and other degenerations of the liver.

"The seventh day was taken up in the oral examination of the Candidates in Surgery. The course pursued was the same as with Medicine, and the subjects on which the Candidates were examined were—inflammation and its consequences, ulceration, suppuration, and gangrene in various tissues and parts ; hectic fever ; aneurism, and varix, varieties of ; cure of, by various modes ; collateral circulation ; arteries, wounds of, hœmorrhage, suppression of, by nature and by art ; hernia, inguinal, varieties of, anatomy of ; hernia, congenital ; hernia generally ; hernia, irreducible, treatment of ; femur, dislocations of, fractures of its neck ; rectum, diseases of ; testes, diseases of ; fractures of olecranon, patella, lower jaw, ribs, &c. &c. ; dislocations of shoulder, elbow, knee, of cartilages of knee joint, of ankle, compound ; erysipelas, varieties of ; phlebitis ; burns and scalds ; mouth, diseases of ; vertebral column, in various situations, fractures of ; bladder, affections of ; calculi, varieties of ; gangrena, senilis ; hospital gangrene ; anthrax ; state of shock or collapse ; wounds, varieties of—gunshot, incised, punctured, lacerated ; tetanus, idiopathic and traumatic ; hydrophobia ; trismus nascentium ; tumours, malignant and non-malignant ; periostitis, necrosis, and diseases of bone ; chest, and abdomen, penetrating wounds of ; naevi ; morbus coxarius ; urethra and prostate, diseases of ; ophthalmia, varieties of—iritis, cataract, extraction and depression of ; short sight ; fracture of base of skull.

"The eighth day was taken up in giving written answers on

Midwifery and Medical Jurisprudence to questions contained in printed paper C.*

"The ninth day was engaged in the oral examination of the Candidates in Midwifery, in the same manner as on the previous occasion of Medicine and Surgery. The subjects on which the Candidates were examined were—labour, varieties of; labour, natural, mechanism of, stages of, treatment of; false and true pains; uterus, structure of; hœmorrhage, uterine; cyanosis; still-born, proportions of; causes of; milk, secretion of; pregnancy, duration of; signs of death of fœtus in utero; diseases of circulation, maternal and fœtal; impregnation, effects of; placenta, adhesion of; stethoscope, uses of, in Midwifery; labour, premature inducement of; reasons for so doing; deformities, &c. &c.; ergot of rye, administration of; effects of, on mother and fœtus; metritis; phlebitis, uterine; peritonitis; phlegmasia dolens; convulsions, puerperal varieties of, treatment of; labour, instrumental turning; pelvis, male and female, differences of; dentition; placenta prævia; pregnancy, extra uterine; discrimination between presentations of arm, of funis, of nates; mania, puerperal; uterus, inversion of.

"The tenth day was passed in the dissecting room, in the

* C.

1st. Name the contents of the uterus towards the end of pregnancy, in an order beginning from its parietes.

2nd. What are the symptoms, causes, and cure of retroversio uteri?

3rd. What are the causes and treatment of uterine hœmorrhage before and after delivery?

1st. Describe the symptoms of poisoning from opium; differences of its action as modified by age; and the treatment to be followed in a case of poisoning from this cause.

2nd. What are the diagnostic symptoms of chronic poisoning by lead?

3rd. What is the strength of the acidum hydrocyanicum dilutum of the London Pharmacopœia? and what of that called Scheele's Acid? What would be the best treatment for an overdose?

4th. What are the native names for nux vomica and datura stramonium? What peculiar symptoms are produced by an over, or poisonous dose of each? And what is the difference between the parts of the cerebro-spinal system on which each poison is supposed chiefly to act?

performance of operations of Surgery. Each Candidate performed at least two operations, the one an operation for aneurism, or taking up an artery, and the other an amputation, or lithotomy. Three Candidates were under examination at the same time, and the following operations were performed in the course of the day: taking up the common carotid, 2; subclavian, 3; external iliac, 2; temporal, brachial, anterior tibial; lithotomy; amputation of foot, Chopart's operation 2; of leg 2; of leg at ankle joint, Syme's operation; of shoulder joint; of thigh (circular and flap); of fore-arm; of great toe. All these operations, with two exceptions, were performed with much dexterity and precision. Performance of operations for hernia, and the dissection of Surgical regions, had been gone through previously in my presence during the examination for Practical Anatomy, necessary before obtaining the 'First Examination Certificate.'

"The eleventh day was taken up with oral examination in Medical Jurisprudence, and practical exercises in the laboratory, viz. in the analysis by each Student separately of three solutions, one of arsenious acid, one of bichloride of mercury, and the third of a combination of starch and sugar, each supposed to be the subject of investigation before an inquest. In all of these, with one exception, they perfectly succeeded, and by the great majority the analyses were performed in a rapid and correct manner; indeed, the only one in which any delay occurred was the third, as might have been anticipated.

"The questions in Medical Jurisprudence were on the following subjects:—corrosive, irritant, narcotic, narcotico-irritant poisons; differences in immediate and remote effects between poisoning from arsenious acid and corrosive sublimate; matters to be attended to in reporting on cases of poisoning; hydrocyanic acid—properties of, strength of, various forms of, tests of; deductions from examinations of marks and injuries in dead bodies; blood stains, modes of discriminating or testing; age of child found dead, ascertainment of; infanticide; violent death, signs of; evidence to be deduced from examination of head, chest, and abdomen; pregnancy, concealment of; ovaries, appearances

in; deductions to be thence drawn; various irritant poisons, difference of solubility, of vaporisability; antidotes what, examples of; arsenic; chronic poisoning from mal-administration of arsenic as a remedy; arsenic, tests for; objections to tests; stomach-pump, use of, in what cases inadmissible.

" The result of these protracted and searching examinations has been the ascertainment that of the nine Candidates who presented themselves eight have been deemed qualified for the Diploma of Graduate, and one only has been rejected."

In the Report of the Government Examiner dated 8th April 1852 it is observed :—

" The final or Diploma Examinations of the Students of the Grant Medical College having terminated on the 6th instant, I have now the honor to submit, in duplicate, a report of the proceedings for the information of Government, and of the Board of Education.

" Examinations on the very important subjects of Clinical Medicine and Clinical Surgery commenced in the Hospital on the 12th January, and were there conducted three times a week for two months, or till the 12th March.

" During these examinations I had ample opportunity of appreciating the scientific, patient, and methodical care with which instruction in these essential matters had been communicated, and of witnessing the admirable results, which were evident in the intelligence and diligence exhibited in the mode in which the Medical and Surgical Clinical Clerks and Dressers performed their duties.

" On Medical subjects their reports of the origin, progress, and treatment of each case of disease were excellent, and their prescriptions were generally most appropriate.

" In Surgery the same results were apparent, and I had numerous opportunities of seeing how thoroughly they had been instructed in the application, arrangement, and modification of apparatus, and in the treatment and dressing of fractures, wounds, ulcers, and burns, &c. &c.

" In these courses the training of the Students was admirable, and the results were quite satisfactory. During the continuance

of the examinations each Student officiated for some time in the capacities both of Clerk and Dresser.

"In consequence of the departure on the 15th March of Professor Peet, the examinations in Operative Surgery, and in the dissection and demonstration of Surgical regions, took place on the 10th and 12th of that month; and on these days each Student was required to take up and tie an important artery, to perform a capital operation, and likewise one or more operations of lesser importance on the extremities, &c. Several operations of lithotomy, amputations at the hip joint, shoulder joint, of the thigh, leg, arm, fore-arm, thumb, great toe, and the fingers, Syme's amputation at the ankle joint, Chopart's and Lisfranc's amputations of the foot, catheterism, &c. were performed, and the following arteries were taken up:—external iliac, 3; femoral, 3; common carotid, 2; subclavian, 2; brachial, 2; anterior tibial, 2; posterior tibial, and radial. The Surgical regions of the lower part of the abdomen and upper part of the thigh, of the neck, and upper and lower extremities, were dissected and demonstrated. These operations and dissections were generally well done, and, with two exceptions in one Student, with dexterity and precision.

"The written examinations were conducted in a manner precisely similar, and with equal precautions, to those of last year. The papers of questions contained in the appended papers were only printed the evening before each examination, and the forms of types were immediately broken up. The Students on each day were allowed from 11 A. M. to 5 P. M. to answer the questions, had no access to books, and were not permitted to communicate with each other.

"The oral examinations were conducted by myself, assisted by the same Assessors (Messrs. Stovell, Watkins, and Campbell) as last year, and by the Principal and Professors of the College, in a manner similar to that then detailed.

"The subjects of examination on all the branches, the time during which each Student was under examination, and the general conduct of the procedure, were precisely as detailed in my report of last year. I need not, therefore, recapitulate.

"The concluding day (the eleventh, not including the morning examinations in the Hospital on Clinical Medicine and Surgery) was taken up with practical exercises on Toxicology in the laboratory. Three substances (sulphate of magnesia, sulphate of zinc, and oxalic acid) resembling each other, but one supposed to be a poison, were submitted for detection and analysis; sweetmeats poisoned with bichloride of mercury were submitted for examination and analysis. The supposed contents of the stomach of an unknown person, found dead, were submitted for analysis (they contained hydrocyanic acid); clothes and a knife stained with what was supposed might be blood, were submitted for report (one was really blood, the other was not). In all of these matters they acquitted themselves exceedingly well.

"The result of these protracted examinations has been the ascertainment, that of the six Candidates who presented themselves, five were deemed qualified for the Diploma of Graduate, and one only rejected."

The statement which has now been completed of the system of Clinical instruction and examination followed in the Grant Medical College consists of little more than a recapitulation in a connected form of facts already published in the annual official Reports of the College. The perusal of the following extract from the Annual Report of the Medical College of Bengal for the Session 1852-53 has suggested to me the expediency and usefulness of re-stating these facts in the manner now adopted:—

"Seventeen Candidates presented themselves, and the following report of the result was submitted by the Examiner:—

"It will be observed that of the unprecedented number of seventeen (17) Candidates, all, save one, have been declared qualified, and that the lad who was unsuccessful failed in one of the subjects only (Midwifery) on which he was examined.

"This result, arrived at after a patient and searching examination in every instance into the acquirements and knowledge of the pupils, in the several branches noted

1. Practical Surgery, and Surgical Anatomy in the Dissecting Room.

2. Practice of Medicine.
3. Practice of Surgery (Oral).
4. Midwifery.
5. Medical Jurisprudence.

in the margin, cannot but be satisfactory to the Council and to Government, as furnishing proof of diligence on the part of both teachers and pupils.

"It has been remarked before, however, that owing to the inadequate means afforded by the College Hospital of teaching so large a body of pupils to apply the knowledge acquired by lectures and reading, with readiness and confidence, to the actual practice of their Profession, by the aid of an extended and complete system of Clinical instruction, the Graduates were, in many instances, not considered capable of acting independently until they had passed a probationary period, of longer or shorter duration, at some of the Government Medical charities, under the guidance of the Superintending Medical Officer; and this course, it appears to the Assessors and to myself, it will be advisable to pursue with the greater number of those who have obtained the Diploma of the College on the present occasion.

"As offering ample scope for remedying for the future this defect in the system of professional tuition at the College, the opening, which has recently taken place, of the spacious new Hospital, must be matter for congratulation; and in strongly recommending that the fullest advantage be taken of the enlarged opportunities now available for imparting efficient Clinical instruction in the departments of Medicine, Surgery, and Midwifery, the Assessors also join me in earnestly urging upon the attention of the Council the propriety of ascertaining in future the qualifications of the Candidates for the College Diploma, by a more practical system of examination than it has hitherto been possible to carry out. We would, in fact, suggest that the mode of testing the knowledge of the Students, now understood to be in force at the University of London, should be also adopted at the College here, as it has already been to a certain extent, and, it is believed, with great advantage, at Bombay.

"The advantages of the system alluded to are detailed at some length in the *London Medical Times and Gazette* of the 20th

November last, an extract from which is annexed for the information of the Council.*

"The Council will observe that to give effect to this method of testing the real practical knowledge of the Candidates for Diplomas, it will be necessary that the Government Examiner (assisted by one or more Assessors, if deemed necessary) should be present at the Hospital twice or thrice a week, if not daily, for about one month before the close of the Sessions of the year,

* "In publishing last week the list of successful Candidates for the degree of Bachelor of Medicine at the University of London, we noticed that, in accordance with some recent regulations of the Senate, the examinations for the Medical Candidates had undergone some remarkable modifications. These changes are of so important a nature, and are so well calculated to improve the *status* of the Graduates, that we are induced to advert more particularly to the subject.

"In Surgery, the Candidates were examined by demonstrations from dry and wet preparations, illustrative of various Surgical accidents and diseases, and of their treatment; but in Medicine, the Candidates were required to examine patients in the wards of an hospital, and afterwards to report in writing on the cases, and also to examine microscopically various specimens of morbid products.

"This is certainly the greatest improvement of all, and must elicit, better than any other test, the capabilities of aquirements of the Medical aspirant. It is comparatively easy for a person of ordinary attainments to pick up by reading a fair knowledge of the symptoms, the progress, and the treatment of disease; but such a person is still very far from being qualified to practice his profession, with satisfaction to himself, or with benefit to his patients. So far may this mere book knowledge be carried, that we have known Students acquire by rote such an amount of information as to gain for them the highest prizes at the Medical schools; and yet they possessed no knowledge of actual disease at the bedside of the patient; nay, more, they had probably committed the unpardonable error of neglecting their hospital practice, and their attendance in the dead house, for the purpose of cramming their heads with the contents of books, which, when unaccompanied by Clinical experience, are of little practical value. Unlike other professions, the study and practice of Medicine are based upon experience and observation; the human body is to be demonstrated and dissected; the materials of our body and of all surrounding objects are to be chemically analysed, weighed, and otherwise physically tested; the properties of Medicines are to be investigated by their known effects upon the patients; Surgery is to be learned by the cultivation of the senses of sight and touch, and its

that he may be able to form a clear judgment of the tact and acquirements of the aspirants in diagnosing and treating disease at the bedside of the patient.

"This Report is under the consideration of the Council."

From this extract, then, it may be learnt that Clinical instruction in Medical Colleges has not yet been so matured as to render further information and suggestion on the subject uncalled for and superfluous.

The statement made in the Bengal Report that the mode of practically testing the knowledge of Students followed for the first time by the Examining Board of the London University in November 1852 has to a certain extent been adopted at Bombay, hardly corresponds with the facts recorded in the official reports of the Bombay College, and reproduced in this paper. A comparison of the method of practical examination in Medicine and Surgery adopted by the University of London, as explained in the *London Medical Times and Gazette*, with that detailed by the President of the Examining Board at Bombay, will at once show that there is little in common between the limited and superficial plan of the former and the lengthened and searching system of the latter.

A comparison of dates will, moreover, show that practical examination in Medicine and Surgery, first followed by the University of London in November 1852, has always existed in

manipulations and appliances must be gained by actual service in the hospital; and true principles of Medicine can only be acquired by diligent observation in the wards, by careful chemical and microscopical examination of the different textures and fluids, and by constant attention to the microscopical appearances. Books are invaluable as guides to actual observation, and lectures are commendable upon the same grounds—neither are to be neglected or undervalued by the Student or the Practitioner; but books and lectures are only the finger-posts to direct our steps; they do not of themselves constitute the road to the goal which we wish to attain.

"In thus combining the practical with the theoretical, the University of London has shown itself duly conscious of the true aims and objects of Medical education, and has afforded an example to all other Examining Medical Boards."

the Grant Medical College, and was fully carried out by the Examining Board in April 1851, and April 1852.

It is, therefore, very apparent, that in thus combining the practical with the theoretical, the example has been afforded to all other examining boards, not by that of the University of London, but by the Government Examiner of the Grant Medical College at Bombay.

I have in a former part of these observations expressed my belief that the Medical Profession suffers in estimation in the United Kingdom from the defective state of Clinical instruction and examination, and that these defects must also tend to favour the introduction and extension of unscientific and empirical systems of practice.

These opinions are, however, quite compatible with the conviction which I also entertain, that in no country is the science of Medicine cultivated with more success, or the Profession followed in a truer spirit. The industry, the intelligence, and the right principles of a portion of the followers of Medical Science, are active and fruitful, in spite of the defects of the systems of Medical education. Though it be true, then, that the Profession of Medicine can never, as a whole, occupy its proper position in a country, unless the system of education and test examination be sound in principle and honestly conducted, still it is equally true, that however perfect the system of Collegiate discipline may be, the Profession can never reach its most advanced state unless there be an after-course of persevering and patient self-education on the part of its followers.

The spirit that leads to this may no doubt to some extent be excited and encouraged by the example and precepts of those who are engaged in Collegiate instruction, and by the institution of Societies for self-improvement ; but these means will not go far towards forming a body of matured, conscientious, and scientific Medical Practitioners, unless they are brought to bear on minds humble, industrious, intelligent, and impressed with a sense of responsibility.

It has been the object of these observations to show that the endeavour is being made to establish in Bombay a correct

system of Medical education; and it has also been made known in the official reports of the College, that, through the instrumentality of the Professors, a Medical Society for the Graduates has been formed, with the view of encouraging professional study and research.

Medical education has existed seven years in Bombay, and eighteen in Bengal. There are now fifteen Graduates of the Bombay College, and about 100 of the Bengal College. It is of interest and importance to inquire whether, in many instances, that spirit of self-education, without which there can be no high-toned Profession of Medicine, has been evinced by these Graduates. To this question I fear it must be replied that no evidence has yet been given of the awakening of this spirit; but that there is much reason to apprehend that the Indian Graduate of Medicine is like the Indian student of every other subject—impressed with the idea that when he leaves his school he is a proficient master. It is to be hoped that the time is not very distant when this unhappy delusion will be dispelled, and that the educated at our Indian Schools and Colleges will become, by the self-discipline and training of their maturer years, fitted to compete in the arena of active life with the ripe intelligence of the educated classes of European countries.

In conclusion, I would recapitulate the objects which I have had in view in writing these remarks. *1st*, To show in what respects systems of Medical education are in general defective. *2nd*, To detail the system pursued in the Grant Medical College where the endeavour has been made to avoid these defects. *3rd*, To state my belief that a high-toned Medical Profession cannot be created by a system of Collegiate education alone, but that the after self-training of well-constituted minds is also essential. *4th*, To express my opinion that Indian Students of Medicine and of other subjects have as yet shown none of that spirit of after self-education, without which there can be no proficiency in any subject, and no maturity of intellect.

I have been induced to make these statements because it seems to me to be the duty of every one who is engaged with progressive subjects to state without reserve the conclusions to which

he has been led after dispassionate inquiry and adequate experience.

The opportunity which I have very lately had of visiting the Medical Colleges at Calcutta and Madras has, in all probability, tended to suggest a more confident expression of opinion than perhaps would have been adopted had my field of observation and inquiry been exclusively confined to my own Presidency.

C. MOREHEAD,

Principal, Grant Medical College.

APPENDIX Z.

Return of the Sick treated in the Clinical Medical Ward of the Jamsetjee Jejeebhoy Hospital, in Sessions 1848-49, 1849-50, *and* 1850-51.

Names of Diseases.		Number Admitted.	Number discharged.	Died.	Total.	Remarks.
Ephemeral		5	5	..		
Intermittent	Quotidian	60	60	..		
	Tertian.	6	6	..		
	With Cerebral Symptoms	2	2	..		
	„ „ „ and slight Pneumonia	1	1	..		
	„ Pneumonia	4	4	..		
	„ Bronchitis	3	3	..		
	„ Asthma (Emphysema)	1	1	..		
	„ Enlarged Spleen	47	47	..		
	„ Gastric Symptoms	1	1	..		
	„ Jaundice	1	1	..		
	„ Acute Dysentery	1	1	..		
					132	

Fevers.	Remittent	Simple	20	20	..	2	
		With Head Symptoms	10	8	2		
		" Pneumonia	14	10	4		
		" Bronchitis	12	12	..		
		" Pneumonia and Bronchitis	1	..	1		
		" Pneumonia and Jaundice	1	1	..		
		" Enlarged Spleen, and Secondary Dysentery	1	..	1		
		" Dysentery	2	..	2		
		" Hepatitis	1	1	..		
		" Hepatitis & Phthisis Pulmonalis.	1	1	..		
		" Hepatitis and Pneumonia	1	1	..		
		" Hepatitis and Enlarged Spleen	1	1	..		
		" Jaundice	18	11	7		
		" Enlarged Spleen	3	2	1		
		" Gastric Symptoms	1	1	..		
		" Rheumatism	1	1	..		
		" Bronchitis and Diarrhœa	1	1	..		
		" Anæmic Cardiac Murmur	1	1	..		
						90	
	Eruptive	Variola	8	3	5		
		Rubeola	1	1	..		
						9	
Abdominal Diseases		Peritonitis	3	2	1		
		Hepatitis	20	20	..		
		Hepatic Abscess	17	4	13		
		Hepatic Abscess and Pleuritic Effusion.	1	..	1		
		Jaundice	5	5	..		
		" and Dysentery	1	..	1		
		Dysentery	55	41	14		
		Diarrhœa	7	6	1		
		Dysentery and Phthisis Pulmonalis	1	1	..		
		Dyspepsia	1	1	..		

Names of Diseases.		Number admitted.	Number discharged.	Died.	Total.	Remarks.
Abdominal Diseases (continued)	Gastro-Enteritis	1	..	1		
	Colic	1	1	..		
	Ascites from Enlarged Liver	1	..	1		
	„ „ „ Spleen	1	1	..		
	Bright's Disease of the Kidney	25	17	8		
	C. Dysentery	1	1	..		
	„ Pericarditis	2	2	..		
	„ Endocarditis	1	1	..		
	„ Secondary Syphilis	1	1	..		
	Diabetes	1	1	..		
	Cystitis	1	1	..		
	Ulcerated Sore Throat	2	2	..		
					149	
Thoracic Diseases	Laryngitis, Chronic	2	1	1		
	Pneumonia	57	35	22		
	Pleuritis	9	5	4		
	Pleurodynia	1	1	..		
	Bronchitis	15	14	1		
	Phthisis Pulmonalis	40	14	26		
	Hœmoptysis	4	3	1		
	Phthisis Pulmonalis, with subsequent Pericarditis	1	1	..		
	Asthma (and Emphysema)	9	8	1		
	Pericarditis	9	8	1		
	Endocarditis	3	3	..		

	Disease of Heart (Valves)	12	5	7	
	„ „ C. Pneumonia	1	..	1	
	„ „ General Peritonitis	1	..	1	
	„ „ Rheumatism	1	1	..	
	Disease of Aorta (Aneurism)	2	..	2	
					167
Diseases of the Nervous System	Meningitis	1	1	..	
	Delirium Tremens	3	3	..	
	Cerebral Disease	2	2	..	
	Apoplexy	1	..	1	
	Hemicrania and Cephalalgia	3	3	..	
	Hemiplegia	22	15	7	
	Paraplegia	2	2	..	
	Facial Palsy	2	2	..	
	Epilepsy	1	1	..	
	Chorea	1	..	1	
	Tetanus (Idiopathic)	1	..	1	
	„ (Traumatic)	2	2	..	
	Hydrophobia	1	..	1	
	Otitis	1	1	..	
					43
Other Diseases	General Dropsy (Leprosy)	1	1	..	
	Rheumatism	17	17	..	
	Syphilis (Primary)	1	1	..	
	„ (Secondary)	9	9	..	
	Cachexia	3	2	1	
	Scorbutus	1	1	..	
					32
	Total....	622	478	144	622

Return of Diseases and Injuries treated in the Surgical Clinical Ward of the Jamsetjee Jejeebhoy Hospital, in Sessions 1848-49, 1849-50, *and* 1850-51.

Names of Diseases.		Number admitted.	Number discharged.	Died.	Remarks.
Abscess	Acute	23	22	1	
	Chronic	11	11	..	
Aneurism of Carotid Artery		1	..	1	
Burns and Scalds		3	3	..	
Contusions		2	2	..	
Condylomata		3	3	..	
Cancrum Oris		1	..	1	
Carbuncle		1	1	..	
Cataract		1	1	..	
Diseases of Bones	Caries	8	6	2	
	Necrosis	3	3	..	
Diseases of Urinary Organs	Calculus Vesicæ	9	8	1	
	,, Urethræ	2	2	..	
	Retention of Urine	5	4	1	
	Stricture of Urethra	13	13	..	

Dislocations	Simple	Shoulder	2	2	..	
		Clavicle	1	1	..	
		Jaw	1	1	..	
		Hip	2	2	..	
		Ankle	1	1	..	
		Fingers and Toes	5	4		1
	Compound	Ankle	1	1	..	
Dracunculus			6	6	..	
Erysipelas			6	5		1
Extravasation of Urine			1	1	..	
Fractures	Simple	Skull	6	..		6
		Nose	1	1	..	
		Clavicle	6	6	..	
		Arm	6	6	..	
		Fore-arm	9	9	..	
		Olecranon	1	1	..	
		Radius	2	2	..	
		Ulna	2	2	..	
		Fingers	2	2	..	
		Ribs	3	3	..	
		Thigh	14	14	..	
		Leg	19	19	..	
		Patella	2	2	..	
	Compound	Arm	1	1	..	
		Fore-arm	3	1		2
		Fingers	5	5	..	
		Metacarpus	1	1	..	
		Carpus	1	1	..	
		Thigh	1	1	..	
		Legs	16	11		5
		Toes	5	5	..	
		Skull	1	1	..	
		Jaw	1	..		1

Names of Diseases.	Number admitted.	Number discharged.	Died.	Remarks.
Fractures, comminuted..... Fore-arm ..	1	..	1	
Leg	2	..	2	
Os Calcis ..	1	..	1	
Patella	1	..	1	
Fistula in Ano	4	4	..	
Fungous Growth of Testicle	2	2	..	
Gangrena Senilis	1	1	..	
Gangrene of Fore-arm..	1	..	1	
,, ,, Arm	3	1	2	
,, ,, Scrotum	3	3	..	
Hernia..	3	3	..	
,, Strangulated Inguinal	4	1	3	
Hœmorrhoids	7	6	1	
Hydrocele	7	7	..	
Hydrophobia..	2	..	2	
Injuries of Head and Spine .. Concussion of Brain..	2	2	..	
Fracture of Base of Skull	1	..	1	
Concussion of Spine..	1	..	1	
Injury of Urethra	1	1	..	
Malignant disease of Testicle	1	..	1	
Prolapsus Ani..	1	1	..	
Paronychia	2	2	..	
Penetrating Wound of Abdomen..	1	1	..	
,, ,, Chest	1	1	..	
Polypus Nasi..	1	..	1	

Rupture of Liver and Kidney		1	..	1
Scrofula		3	3	..
Scirrhus of Glands of Neck		2	2	..
Sprain—Subluxation of Ankle		3	3	..
Syphilitic Diseases	Primary	25	25	..
	Secondary	23	22	1
	Gonorrhœa	9	9	..
	Syphilitic Iritis	3	3	..
Tetanus		9	4	5
Tubercular Leprosy		1	1	..
Tumours	Encysted	6	6	..
	Of Hand (Fatty)	1	1	..
	Of Jaw (Fibrous)	1	1	..
	„ „ (Fibro Cartilaginous)	1	1	..
Ulcers	Indolent	4	4	..
	Irritable	7	7	..
	Scorbutic	27	25	2
	Sloughing	7	7	..
	Weak	6	6	..
	Phagedœnica	1	1	..
Wounds	Contused and Lacerated	88	82	6
	Incised	3	2	1
	Punctured	3	3	..
	Total	508	451	57

Table of Capital and Minor Operations performed in the presence of, and by the Students, during Sessions 1848-49,* 1849-50, *and* 1850-51.

Lateral Operation of Lithotomy	9
Strangulated Inguinal Hernia	4
Removal of greater part of Upper Jaw	1
„ „ Fibro-Cartilaginous Tumour from Abdomen	1
Amputation of Fore-arm	7
„ „ Leg	12
„ „ Thigh	6
„ „ Fingers and Toes	25
Cutting for Fistula in Ano	3
„ through adhesions between Tongue and Cheek	1
„ into Urethra for removal of Calculus	1
„ into Perineum for Extravasation of Urine	4
Dividing Prepuce and dissecting it from Glans	1
„ Tendo Achillis	2
Removing Epulis	3
„ Hypertrophied growth from Ear	1
„ Calculi from Urethra	8
„ Œdematous Prepuce	1
„ Tumours	13
„ Hœmorrhoids	23
„ Polypus from Ear	3
„ „ „ Nose	17
„ „ „ Pharynx	2
„ Foreign bodies from Nose	15
„ Fibro-Cartilaginous Tumour from Finger	1
„ Warty Excrescences	34
Slicing off Fungous Growth	1
Slitting up Prepuce	6
Circumcision	24
Operation for Entropium	3
Paracentesis Abdominis	10
Passing Catheters and Sounds	313
Tapping for Hydrocele	265
Puncturing Ganglia	10
„ Bladder above the Pubis	2
Opening Abscesses	760

* The number of minor operations for this Session have not been recorded, those for 1851-52 have therefore been substituted.

Reducing Dislocation of Jaw	4
„ „ Hip	2
„ „ Shoulder	2
„ „ Ankle	1
„ Strangulated Hernia	2
Applying Issues, Setons, and Sutures	94
Bleeding	129
Cupping	214
Lancing Gums	17
Extracting Teeth	384

C. MOREHEAD,
Principal, Grant Medical College.

APPENDIX AA.

PROCEEDINGS OF THE GRANT COLLEGE MEDICAL SOCIETY, DURING THE SESSION 1852-53.

Minutes of a Meeting of the Grant College Medical Society, held in the College Library, on Saturday, the 10th July 1852, at 8 o'clock P. M.

Present—

Dr. W. C. Coles, in the Chair..... } *Vice-Presidents.*
Mr. Bhawoo Dajee..... }

Members.

R. Haines, Esq.; Messrs. J. C. Lisboa; F. F. Gomes; Atmaram Pandoorang; Merwanjee Sorabjee; Burjorjee Dorabjee; and S. A. de Carvalho, *Secretary.*

Visitors.

Dr. J. F. Watson; Messrs. Narayan Dajee; Dossabhoy Bazunjee; Ardaseer Jamsetjee; and Eduljee Rustomjee.

The Proceedings of the last Meeting were read and confirmed.

The following letters were read:—

1. From the Secretary to the Medical Board, forwarding for the use of the Society a copy of a Report on Fever and Dysentery, by Assistant Surgeon Hare, of the Bengal Medical Service.

2. From the Principal of the Grant Medical College forwarding a copy of the Report of the Grant Medical College for the Session 1851-52; also a copy of Dr. Coles' introductory lecture.

3. From the Secretary of the Grant College Medical Society, to the Secretary to the Medical Board, returning the best thanks of the Society for their donation.

4. From the Secretary of the Grant College Medical Society to the Secretaries to the Council of the Calcutta and Madras Medical Colleges, and to Dr. H. Giraud and Mr. Anunta Chundroba, transmitting printed copies of the Proceedings of the Society, from its commencement to the last Meeting of the Session 1851-52.

In accordance with paras. 2nd and 3rd of the Regulations of the Society, Dr. Coles suggested that the new Professors and Graduates of the College should be proposed and seconded at the present, and ballotted for at the next, Meeting of the Society.

Proposed by the Secretary, seconded by Mr. Gomes, and unanimously carried—

That Drs. Ballingall and Watson, and Messrs. Narayan Dajee, Muncherjee Sorabjee, Sadashew Hemraj, Dossabhoy Bazunjee, and Balcristna Chintoba be admitted as Members of the Society.

Mr. Bhawoo Dajee then read a Paper "On the Crania of different Races of Men," chiefly in relation to their size and capacity, as compared with an European skull, being the result of some observations made on a few skulls presented by him to the Museum of the Grant Medical College.

The Chairman, in the name of the Meeting, thanked Mr. Bhawoo Dajee for his brief, but interesting paper, and expressed a hope that he would on some future occasion favor the Society with the result of his further observations on the subject.

A communication was then read by Mr. Lisboa, being "Notes on a Case of Tetanus following Amputation of the Arm for Gangrene," and in which the causes of gangrene and tetanus were chiefly discussed, and the propriety of amputation in such cases looked upon as questionable.

After a short discussion on the chief points of interest in the paper, the thanks of the Society were returned to Mr. Lisboa, and the Meeting was adjourned to Saturday the 14th August.

W. C. Coles, M.D., *Vice-President.*
S. A. de Carvalho, *Secretary.*

Minutes of a Meeting of the Grant College Medical Society, held in the College Library on Saturday, the 14th August 1852, at 8 o'clock P. M.

Present—

Dr. W. C. Coles, in the Chair..... } *Vice-Presidents.*
Mr. Bhawoo Dajee..... }

Members.

Messrs. J. C. Lisboa; Atmaram Pandoorung; P. F. Gomes; Merwanjee Sorabjee; and S. A. de Carvalho, *Secretary.*

Visitors.

H. J. Carter, Esq.; Dr. J. F. Watson; Messrs. Narayan Dajee; Sadashew Hemraj; Dossabhoy Bazunjee; and Eduljee Rustomjee.

The Proceedings of the last Meeting were read and confirmed.

The following letters were read :—

1. From the Secretary of the Medical and Physical Society, Bombay, thanking the Grant College Society for their donation of the "Report on the Cases of Tetanus," by J. Peet, Esq., and presenting to the Society 45 printed copies of the same, for distribution amongst its Members.

2. From the Secretary to the Council of the Madras Medical College, acknowledging the receipt of, and thanking the Society for, the printed copies of its Proceedings, and presenting to the Society 3 copies of a "Report of the Proceedings of the 1st Graduation" held at the Madras Medical College.

3. From the Secretary of the Grant College Medical Society to the Secretaries of the Medical and Physical Society, Bombay, and the Council of the Madras Medical College, acknowledging, with thanks, the receipt of their letters and donations.

The following gentlemen, who had been duly proposed and seconded at the last Meeting, were then unanimously elected Members of the Society, viz :—Dr. G. R. Ballingall, Acting Professor of Anatomy and Surgery; Dr. J. F. Watson, Curator of the Museum, Grant Medical College; Messrs. Narayan Dajee, and Dossabhoy Bazunjee, Graduates of the College; and Messrs.

Sadashew Hemraj, Balcrustna Chintoba, and Muncherjee Sorabjee, Graduates of the College, and Sub-Assistant Surgeons Bombay Establishment.

Before the election took place, the Chairman reminded the Meeting, that according to the Rules, all new Members were to be elected by ballot; but it appeared to him, that upon the present occasion the Rule might be dispensed with, as they would all doubtless be glad to welcome the new Professors and brother Graduates of the College amongst them. The Meeting, entirely concurring with these views, unanimously elected the abovementioned gentlemen Members of the Society.

Mr. Gomes read to the Meeting a paper, being a "General Sketch of the Medical Topography of the Island of Salsette," in which its situation and extent, its divisions, inlets of the sea, mountains, rivers, fountains, tanks, and marshes were described; also the nature of the soil and its exhalations, the sources of the latter, and the diseases they generally gave rise to.

After its conclusion, and after several points had been discussed, Dr. Coles drew the attention of the Meeting to a preparation of a "Gravid Uterus" taken three days before from a female who had died in the Hospital.

Mr. Sadashew Hemraj described briefly the symptoms the female presented upon admission, and the progress of the case during life. He had himself heard the sounds of the fœtal heart very distinctly, especially in the middle line of the body, a little below the umbilicus, but he had no suspicion of twin fœtuses, his attention not having been particularly directed to the pregnancy further than to satisfy himself of its existence. Dr. Coles mentioned that before opening the uterus he had been struck with its peculiar shape and appearance, but he was not prepared to find that twin fœtuses were the cause. He thought the preparation interesting, as it showed the most natural and common position of fœtuses in the uterus in twin cases; the head of the left and the breech of the right fœtus presenting; they were of the same sex (females), each enclosed in a separate bag of membranes, and each having its own placenta and cord.

The placentæ were also attached, as is usual, *i. e.* in the

greatest distance from each other. The fœtuses were about the 6th or 7th month, and appeared to have been in vigorous health.

The thanks of the Meeting were tendered to Mr. Gomes for his communication, and a general wish expressed that he would favour the Society at some future time with a continuance of similar observations.

In accordance with para. 15 of the Regulations, it was announced that a paper on "Vaccination" would be read by Mr. Atmaram Pandoorang at the next Meeting of the Society, to be held on Saturday, the 11th September 1852.

BHAWOO DAJEE, *Vice President.*
S. A. DE CARVALHO, *Secretary.*

Minutes of a Meeting of the Grant College Medical Society, held in the College Library on Saturday, the 11th September 1852, at 8 o'clock P. M.

Present—

Mr. Bhawoo Dajee, *Vice-President,* in the Chair.

Members.

Drs. Morehead; Haines; Watson; and Ballingall; Messrs. Atmaram Pandoorang; Merwanjee Sorabjee; Burjorjee Dorabjee; Narayan Dajee; Muncherjee Sorabjee; Dossabhoy Bazunjee, Sadashew Hemraj; and S. A. de Carvalho, *Secretary.*

Visitors.

Dr. J. McLennan; H. J. Carter, Esq.; and Mr. Eduljee Rustomjee.

The Proceedings of the last Meeting were read and confirmed.

The following letter was read :—

From Mr. Burjorjee Dorabjee, presenting to the Society 16 volumes of different Medical works, for which the best thanks of the Society were returned.

Mr. Atmaram Pandoorang read a paper on Vaccination, in which the following points were chiefly discussed :—1*st.* Is the practice of vaccination generally known to exist? 2*nd.* Do people understand its objects? 3*rd.* The causes of neglect in

observing it extensively; and *4th.* The best means for extending the practice.

After its conclusion, the several important topics alluded to in the paper were discussed, and the best thanks of the Society returned to Mr. Atmaram Pandoorang for his communication, and a hope expressed that Mr. Atmaram would continue to direct his attention to the same subject, and favor the Society at some future occasion with further observations and details upon it.

Mr. Haines then read to the Meeting notes on a case in which fragments of bottle glass were swallowed by a man admitted into the Jamsetjee Jejeebhoy Hospital. The case was shown as chiefly interesting, from the little evil results that followed. The chief symptoms on admission were, a pricking sensation about the throat and epigastrium, and tenderness on pressure at the latter.

There were no constitutional symptoms, and the man was discharged well. The fragments of glass swallowed varied from an inch in length to about the size of a grain of rice. The treatment adopted was an emetic on admission, and one or two laxatives subsequently, by the operation of which latter the pieces of glass were discharged. In reference to the treatment, Mr. Haines remarked upon the propriety of keeping patients under observation in such cases at least for ten days, as this would seem to have been the period in which in two cases adverted to by him death ensued; in both, by the foreign body making its way into the common carotid artery and arch of the aorta.

After a short discussion, the Meeting was adjourned to Saturday the 9th October 1852.

After the business of the Society was over, Dr. Watson displayed, under the microscope, a number of preparations, in which the different forms of vegetable structure were shown.

W. C. Coles, M. D., *Vice-President.*
S. A. de Carvalho, *Secretary.*

Minutes of a Meeting of the Grant College Medical Society, held in the College Library, on Saturday, the 9th October 1852, at 8 o'clock P. M.

Present—

Dr. W. C. Coles, in the Chair ..... } *Vice-Presidents.*
Mr. Bhawoo Dajee ..... }

Members.

Drs. C. Morehead; R. Hains; J. F. Watson; G. Ballingall; Messrs. Atmaram Pandoorang; P. F. Gomes; Burjorjee Dorabjee; Narayan Dajee; Dossabhoy Bazunjee; Sadashew Hemraj; Balcristna Chintoba; Muncherjee Sorabjee; and S. A. de Carvalho, *Secretary.*

Visitors.

Drs. A. H. Leith; M. Stovell; and Mr. Ardaseer Jamsetjee.

The Proceedings of the last Meeting were read and confirmed.

The following letters were read:—

1. From the Secretary to the Medical Board, Bombay, presenting for the use of the Society a copy of observations and reports on the treatment of Intermittent Fever by phosphate of lime and sulphur, by Assistant Surgeon Blacklock, of the Madras Medical Establishment.

2. From the Secretary of the Grant College Medical Society to the Secretary to the Medical Board, acknowledging with thanks the receipt of Dr. Blacklock's treatise.

Mr. Bhawoo Dajee then read to the Meeting an address to the Natives of India on the subject of Vaccination, in which an account of the process from its origin was traced, the advantages accruing from its introduction (with the view of lessening the mortality of small-pox) fully described, and an appeal made to the Natives of this country to encourage and extend its practice.

At the conclusion of the paper, and after a short discussion, it was suggested that translations should be printed for circulation amongst the Native community.

Mr. Bhawoo Dajee next related a case of poisoning by arsenic. The subject was a Parsee coachman, who swallowed about one and a half drachms of arsenic after a full meal, and in which about two hours elapsed before any bad symptoms manifested themselves.

The treatment chiefly consisted in the free administration of

limewater and milk, effervescing draughts, and the application of leeches and blisters to the epigastrium. About seven days after, secondary symptoms of poisoning by arsenic showed themselves, consisting of weakness of the wrist joints, tremors of the hands, inability to walk, and peeling off of the cuticle ; for these he is now under treatment in the Jamsetjee Jejeebhoy Hospital.

Several points of interest alluded to in the paper were then shortly discussed. The next paper announced, "On the Diet of the Natives," was, at the request of Mr. Bhawoo Dajee, postponed for another Meeting.

The thanks of the Society were conveyed to Mr. Bhawoo Dajee for his communications, and the Chairman announced to the Meeting that a paper on the Practice of Midwifery by the Natives, as compared with the European mode of practice, would be read by Mr. Burjorjee Dorabjee, at the next Meeting, to be held on Saturday the 13th November 1852.

After the Meeting Dr. Watson exhibited under the microscope several preparations of vegetable structure.

W. C. COLES, M.D., *Vice-President.*
S. A. DE CARVALHO, *Secretary.*

Minutes of a Meeting of the Grant College Medical Society, held in the College Library on Saturday, the 13th November 1852, at 8 o'clock P. M.

Present—

Dr. W. C. Coles, in the Chair..... *Vice-President.*

Members.

Drs. Morehead ; Watson. Messrs. Atmaram Pandoorang ; P. F. Gomes ; Merwanjee Sorabjee ; Burjorjee Dorabjee ; Narayan Dajee ; Balcrishna Chintoba ; Dossabhoy Bazunjee ; Sadashew Hemraj ; and S. A. de Carvalho, *Secretary.*

Visitors.

Drs. Arbuckle and Boycott, introduced by Dr. Coles.

The Proceedings of the last Meeting were read and confirmed.

Mr. Burjorjee Dorabjee then read to the Meeting a paper, in which the practice of Midwifery by the Natives was reviewed,

and comparisons established between it and the European mode of practice, chiefly in relation to the female before, during, and after child-birth.

At its conclusion, and after several interesting points in connection with it were discussed, the Chairman expressed to Mr. Burjorjee Dorabjee the thanks of the Society for his interesting communication, and the hope that he would favor the Society with a continuation of the subject, namely, the management of the female after child-birth, and of the infant after birth.

It was also announced, that the following communication would be presented to the Society at the next Meeting, to be held on Saturday the 11th December 1852, viz :—

Notes on two Cases of Chylo-serous Urine, by Mr. Dossabhoy Bazunjee.

After the Meeting Dr. Watson continued his histological illustrations.

W. C. COLES, M.D., *Vice-President.*
S. A. DE CARVALHO, *Secretary.*

Minutes of a Meeting of the Grant College Medical Society, held in the College Library on Saturday, the 11th December 1852, at 8 o'clock P. M.

Present—

Dr. W. C. Coles, in the Chair..... *Vice-President.*

Members.

Drs. Morehead; Watson; Haines. Messrs. Atmaram Pandoorang; Dossabhoy Bazunjee; and S. A. de Carvalho, *Secretary.*

Visitors.

Drs. Boycott and Stocks, and Mr. Ardaseer Jamsetjee.

The Proceedings of the last Meeting were read and confirmed.

Mr. Dossabhoy Bazunjee read to the Meeting "Notes on two Cases of Chylo-serous Urine," in which a full description of the symptoms present, and the treatment adopted, was given.

The cases were of considerable interest, as showing the very little efficacy that remedial means and changes in diet possess in eradicating or arresting the progress of the disease.

Both cases, however, apparently yielded to a change of residence.

The author then drew the attention of the Society to the question whether a change of residence or climate might be considered beneficial in the treatment of the disease.

In support of that opinion, the Secretary read a few notes on another case of chylo-serous urine, which came under his observation in the Jamsetjee Jejeebhoy Hospital, and in which, after the ordinary remedial means had been tried without advantage, a change of air restored the patient to health.

After a short discussion on the nature of the disease, its relative frequency in tropical countries, &c., the best thanks of the Society were conveyed to Mr. Dossabhoy Bazunjee for his communication, and the Meeting was adjourned to Saturday the 15th January 1853, which, being the Annual Meeting of the Society, the Chairman announced, that in accordance to the 16th para. of the Regulations, the election of Office-Bearers for the ensuing year would take place.

Dr. Watson continued his histological illustrations after the Meeting.

W. C. COLES, M.D., *Vice-President.*
S. A. DE CARVALHO, *Secretary.*

Minutes of the Annual Meeting of the Grant College Medical Society, held in the College Library on Saturday, the 15th January 1853, at 8 o'clock P. M.

Present—

Dr. W. C. Coles, in the Chair.....
Mr. Bhawoo Dajee..... } *Vice-Presidents.*

Members.

Dr. Giraud; Messrs. J. C. Lisboa; P. F. Gomes; Atmaram Pandoorang; Burjorjee Dorabjee; Narayan Dajee; Dossabhoy Bazunjee; and Balcrishna Chintoba.

The Meeting proceeded to nominate the Office-Bearers for the ensuing year, and the following Gentlemen were found to be duly elected:—

President.

W. C. Coles, M.D.

Vice-Presidents.

H. Giraud, M.D.; Mr. Bhawoo Dajee.

Secretary.

Mr. S. A. de Carvalho.

Members of the Committee of Management.

Mr. J. C. Lisboa; Mr. Atmaram Pandoorang; Mr. Burjorjee Dorabjee.

The Annual Accounts, of which the following is a summary, were laid before the Meeting, examined, and approved :—

Annual Statement of Receipts and Disbursements of the Grant College Medical Society, from November 1851 *to* 1852.

Receipts.					Disbursements.				
1852		Rs.	a.	p.	1852		Rs.	a.	p.
31st Dec.	Amount received on account of Subscriptions.	96	0	0	31st Dec.	Amount paid for contingencies, &c. &c..	18	8	0
						Balance due .....Rs.	77	8	0
	Rupees....	96	0	0		Rupees....	96	0	0

Dr. Coles, after expressing the gratification he felt at being elected President, read a general report of the operations of the Society during the first year of its existence. He briefly alluded to the temporary loss sustained by the Society in the departure of its first President, Mr. Peet; passed in review the various contributions received, the amount of interest exhibited at the Meetings, the attendance of members and visitors, and the success of Dr. Watson's histological illustrations. After referring to some of the objects contemplated in the establishment of this and similar societies, he expressed a hope that the following year would be marked by an equal, if not by a greater, amount of exertion and unanimity on the part of its Members.

It was moved by Dr. Giraud, and seconded by Mr. Lisboa—That the best thanks of the Meeting be accorded to Dr. Coles, for his full and interesting report.

Mr. Bhawoo Dajee proposed, as an amendment, which was seconded by Mr. Atmaram Pandoorang, that Dr. Coles be requested to publish the address, to which they had listened with much gratification. Dr. Coles stated that as the report was not written with the view of publication, he regretted he could not give an immediate assent, but that he would consider the subject, and, if leisure permitted, accede to the wishes of the Meeting.

The consideration of the establishment of a Book Club was then brought forward, and after some discussion it was resolved to refer the matter to the Committee of Management.

The Meeting then adjourned to Saturday the 12th February 1853.

W. C. COLES, M.D., *President.*
J. C. LISBOA, *Officiating Secretary.*

Minutes of a Meeting of the Grant College Medical Society, held in the College Library on Saturday, the 12th February 1853, at 8 o'clock P. M.

Present—

Dr. W. C. COLES.....*President.*

Members.

Dr. Watson; Messrs. J. C. Lisboa; Atmaram Pandoorang; P. F. Gomes; Burjorjee Dorabjee; Narayan Dajee; Sadashew Hemraj; and S. A. de Carvalho, *Secretary.*

The Proceedings of the last Meeting were read and confirmed.

A letter read from the Secretary to the Medical and Physical Society, Bombay, presenting to the Grant College Society a copy of the 1st Number of the new series of its Transactions.

Mr. Lisboa then read to the Meeting some observations on two cases of Ulceration of the Stomach, both of them found after death in the course of his dissections, referring to two preparations on the table, presented by him to the Grant College Museum.

In one, the ulcer had perforated all the coats of the stomach, producing death by general peritonitis; and in the other it was limited to the mucous lining.

The preparations were of interest, as illustrating what has been termed by M. Cruveilhier "Simple Ulcer of the Stomach."

The history of the disease, as it has been observed, was related, its non-inflammatory nature dwelt upon, and its anatomy, diagnostic symptoms, pathology, causes, and treatment described.

Mr. Lisboa then drew the attention of the Society to the frequency of the disease in European countries, as observed by MM. Cruveilhier and Rokitanski, and the probability of its frequency here also, if particularly looked after.

After some discussion on the several points alluded to in the paper, the thanks of the Society were given to Mr. Lisboa for his interesting communication, and it was announced by the President that a paper on a case of Carbuncle would be read by Mr. Narayan Dajee at the next Meeting, to be held on Saturday the 12th March.

After the Meeting Dr. Watson exhibited some specimens and preparations of "colostrum," "muscular fibres," "ciliary and squamous epithelium," "fibrous tissues," and "pigment cells," under the microscope.

W. C. Coles, *President.*
S. A. de Carvalho, *Secretary.*

At a Meeting of the Committee of Management, held in the Grant Medical College on Thursday, the 24th February 1853.

Present—

Dr. W. C. Coles.....*President.*

Members.

Messrs. J. C. Lisboa; Atmaram Pandoorang; Burjorjee Dorabjee; and S. A. de Carvalho, *Secretary.*

The following Rules, for the establishment of a Book Club in connection with the Society, were framed:—

Draft of Rules for the Grant College Medical Society Book Club.

1. Members of the Society, resident in Bombay, may become Subscribers to the Book Club.

2. The rates of Subscription are for the present Rs. 6 a year, in advance, for no less a period than a year, commencing from 1st January.

3. The following periodicals will be put in circulation when procured :—

The British and Foreign Medico-Chirurgical Review.
Edinburgh Monthly Journal of Medical Science.
Medical Gazette and Times.
Lancet.
Pharmaceutical Journal.
Guy's Hospital Reports.
Medico-Chirurgical Transactions.
Dublin Journal of Medical Sciences.

4. Any loss or injury happening to a book whilst in a Subscriber's possession is to be made good by the party, by the payment of its price, or substitution of a fresh number.

5. The smaller periodicals are to be kept for three days, the larger not longer than seven.

6. Names will be entered in the list according to convenience of residence, and the periodicals circulated in rotation.

7. Should the expenditure for books exceed the amount subscribed by Members, the balance will be made up from the Society's general Funds.

8. The books, after circulation, are to be deposited in the Society's Library, for future reference.

9. Members of the Society agreeing to the above Rules, and wishing to join the Book Club, are requested to do so by attaching their initials to the following list :—

(Here follow the names of the Resident Members, &c.)

W. C. Coles, M.D., *President.*
S. A. De Carvalho, *Secretary.*

Minutes of a meeting of the Grant College Medical Society, held in the College Library on Saturday the 12th March 1853, at 8 o'clock P. M.

Present—

Dr. W. C. Coles.....*President.*
Dr. H. Giraud.....*Vice-President.*

Members.

Dr. Watson ; Messrs. Atmaram Pandoorang ; Burjorjee Dorabjee; J. C. Lisboa ; P. F. Gomes ; Narayan Dajee ; Dossabhoy Bazunjee ; Sadashew Hemraj ; and S. A. de Carvalho, *Secretary.*

Visitor.

H. J. Carter, Esq.

The proceedings of the last Meeting, and of a Meeting of the Committee of Management, held for the purpose of establishing a Book Club in connection with the Society, were read and confirmed.

Mr. Narayan Dajee read a paper on a case of Carbuncle, occurring in a Parsee about 60 years of age.

The case presented many points of interest, and was fully detailed. The carbuncle occupied the left side of the face and neck, extending from the jaw to near the clavicle, and it pressed upon the left palatine arches and pharynx, rendering deglutition difficult.

During its progress a fistulous communication between the pharynx and the external ulceration and sloughing was established, so as to interfere with the introduction of food, and requiring the use of the stomach pump.

The jugular vein and carotid artery of the affected side would seem to have been obliterated and sloughed away, as no traces of them could be detected. The pneumogastric nerve was also believed to be exposed. The case ultimately proved fatal, but no opportunity for a careful examination of the diseased and implicated structures was afforded.

The symptoms, pathology, and treatment of the disease were reviewed, and some observations made, bearing upon the physiological functions of the facial, phrenic, and pneumogastric nerves.

After its perusal, and some discussion upon the interesting topics of the case presented, Mr. Narayan Dajee was thanked for

his interesting communication, and it was announced that at the next Meeting the following paper, by Mr. Atmaram Pandoorang, would be laid before the Society :—"Notes on a Case of Twin Birth, in which the birth of the second child was obstructed by the protrusion of the hand."

After the Meeting, the following preparations were exhibited, under the microscope, by Dr. Watson :—

1. Bone development, 1st stage.
2. Transverse section of femur.
3. Vertical section of bone, showing haversian canals, communicating.
4. Tooth of a horse, transverse section, showing ivory, enamel, and C. petrosa.
5. Kidney, injected, of dog, showing malpighian bodies.
6. Vessels of retina of cat, injected.
7. Villi and small intestines, human, injected.
8. Skin from tip of finger, injected.

W. C. COLES, M.D., *President.*
S. A. DE CARVALHO, *Secretary.*

Minutes of a Meeting of the Grant College Medical Society, held in the College Library on Saturday, the 9th April 1853, at 8 o'clock P. M.

Present—

Dr. W. C. Coles.....*President.*
Dr. H. Giraud.....
Mr. Bhawoo Dajée..... } *Vice-Presidents.*

Members.

Drs. Morehead; Watson. Messrs. J. C. Lisboa: Atmaram Pandoorang; P. F. Gomes; Dossabhoy Bazunjee; and S. A. de Carvalho, *Secretary.*

The Proceedings of the last Meeting were read and confirmed.

A letter was read from the Secretary to the Council of the Madras Medical College, presenting a copy of the Annual General Report of the Madras Medical College.

Mr. Atmaram Pandoorang then read notes on a case of Twin Birth, in which the birth of the second child was obstructed by the protrusion of the hand.

The remarks chiefly referred to the diagnosis, as distinguished from cross-birth; and also to the propriety of the treatment in replacing or otherwise the prolapsed part. Reference was also made to Dr. Rigby's statement of the rarity of the presentation of the arm with the head, and a dissent from his opinion expressed.

The case was fully described, and interspersed with a few observations on the opinions and proceedings of Native midwives.

After a short discussion, the Secretary read to the Society "Notes on Cases illustrative of the Purulent Diathesis treated in the Jamsetjee Jejeebhoy Hospital."

Five cases of the disease that had come under his observation were fully detailed, with remarks upon the nature, &c. of each; the different theories up to the present day in regard to the disease were mentioned, and its pathology, anatomical characters, symptoms, causes, diagnosis, prognosis, and treatment were severally discussed, allusions being made to these as they presented themselves in the cases related.

The paper concluded by the expression of a belief in the greater frequency of the disease in this country than is generally supposed; and with respect to several questions which had arisen in the paper, an opinion was entertained that eventual success must attend their decision, under careful microscopic investigation.

Dr. Morehead expressed the gratification he had derived from listening to the paper, and he thought the thanks of the Society were due to the author for his excellent communication. He concurred with the author in opinion with respect to the frequency of the disease in this country, and, in support of this opinion, mentioned a few cases he had lately observed.

A short discussion ensued, after which the thanks of the Society were accorded to Mr. Atmaram Pandoorang and the Secretary for their communications, and the Meeting was adjourned to Saturday the 9th July 1853.

The following microscopical preparations were exhibited under the microscope by Dr. Watson :—

Three varieties of uric acid crystals.
Two „ „ oxalate of lime crystals.
„ „ „ triple phosphate of lime.
A preparation of mixed phosphates.
„ „ urate of ammonia.
„ „ cystine.
„ „ hippuric acid.
„ „ urate of magnesia.

S. A. DE CARVALHO, *Secretary*.

APPENDIX BB.

Dr. *Carnac Scholarship.* *Cr.*

1851.		*Rs.*	*a.*	*p.*	days	*Rs.*	*a.*	*p.*	1851.		*Rs.*	*a.*	*p.*	days	*Rs.*	*a.*	*p.*
May 2nd	To Cash paid C. Morehead, Esq., Superintendent of the Grant Medical College, on this account.	27	8	0	364	1	10	4	May 1st	By Balance.....	11497	3	8	365	689	13	4
July 10th	Ditto	137	8	0	295	6	10	8	1852.								
Aug. 1st	Ditto	55	0	0	273	2	7	6	Apr. 30th	By difference of Interest at 6 per cent.	669	6	2				
Sept. 2nd	Ditto	55	0	0	241	2	2	10									
Oct. 2nd	Ditto	55	0	0	211	1	14	6									
Nov. 3rd	Ditto	55	0	0	179	1	9	10									
Dec. 1st	Ditto	55	0	0	151	1	5	10									
1852.																	
Jan. 3rd	Ditto	55	0	0	118	1	1	0									
Feb. 2nd	Ditto	55	0	0	88	0	12	8									
Mar. 2nd	Ditto	55	0	0	60	0	8	8									
April 1st	Ditto	55	0	0	30	0	4	4									
		660	0	0		20	8	2									
,, 30th	To Balance	11,506	8	10		669	5	2									
	Rupees	12,166	8	10		689	13	4		Rupees	12166	8	10		689	13	4

Dr. *Farish Scholarship.* *Cr.*

1851.		Rs.	a.	p.	days	Rs.	a.	p.	1851.		Rs.	a.	p.	days	Rs.	a.	p.
May 2nd	To Cash paid C. Morehead, Esq., Superintendent of the Grant Medical College, on this account	15	0	0	364	0	14	4	May 1st	By Balance	12,466	0	11	365	747	15	5
July 10th	Ditto	125	0	0	295	6	0	11	1852.								
Aug. 1st	Ditto	50	0	0	273	2	3	10	Apr. 30th	By difference of Interest at 6 per cent.	729	14	9				
Sept. 2nd	Ditto	50	0	0	241	1	15	8									
Oct. 2nd	Ditto	50	0	0	211	1	11	9									
Nov. 3rd	Ditto	50	0	0	179	1	7	6									
Dec. 1st	Ditto	50	0	0	151	1	3	10									
1852.																	
Jan. 3rd	Ditto	50	0	0	118	0	15	6									
Feb. 2nd	Ditto	50	0	0	88	0	11	7									
Mar. 2nd	Ditto	50	0	0	60	0	7	10									
Apr. 1st	Ditto	50	0	0	30	0	3	11									
		590	0	0		18	0	8									
,, 30th	To Balance	12,605	15	8		729	14	9									
	Rupees	13,195	15	8		747	15	5		Rupees	13,195	15	8		747	15	5

Dr. *Anderson Scholarship.* *Cr.*

1851.		Rs.	a.	p.	days	Rs.	a.	p.	1851.		Rs.	a.	p.	days	Rs.	a.	p.
May 2nd	To Cash paid C. Morehead, Esq., Superintendent of the Grant Medical College, on this account	30	0	0	364	1	12	8	May 1st	By Balance.....	12,957	9	10	365	777	7	3
July 10th	Ditto	150	0	0	295	7	4	4	1852.								
Aug. 1st	Ditto	60	0	0	273	2	11	1	Apr. 30th	By difference of Interest at 6 per cent.....	755	1	3				
Sept. 2nd	Ditto	60	0	0	241	2	6	0									
Oct. 2nd	Ditto	60	0	0	211	2	1	3									
Nov. 3rd	Ditto	60	0	0	179	1	12	3									
Dec. 1st	Ditto	60	0	0	151	1	7	10									
1852.																	
Jan. 3rd	Ditto	60	0	0	118	1	2	7									
Feb. 2nd	Ditto	60	0	0	88	0	13	10									
Mar. 2nd	Ditto	60	0	0	60	0	9	5									
Apr. 1st	Ditto	60	0	0	30	0	4	9									
		720	0	0		22	6	0									
„ 30th	To Balance	12,992	11	1		755	1	3									
	Rupees	13,712	11	1		777	7	3		Rupees	13,712	11	1		777	7	3

Dr. *Reid Scholarship.* *Cr.*

1851.		Rs.	a.	p.	days	Rs.	a.	p.	1851.		Rs.	a.	p.	days	Rs.	a.	p.
May 2nd	To Cash paid C. Morehead, Esq., Superintendent of the Grant Medical College, on this account	10	0	0	364	0	7	11	May 1st	By Balance.....	8,350	0	7	365	417	8	0
									1852.								
1852.									Apr. 30th	By difference of Interest at 5 per cent.	417	0	1				
Apr. 30th	To Balance	8,757	0	8		417	0	1									
	Rupees	8,767	0	8		417	8	0		Rupees	8,767	0	8		417	8	0

Dr. *Sir Jamsetjee Jejeebhoy's Medical Book Fund.* *Cr.*

1849.		Rs.	a.	p.	1848.		Rs.	a.	p.
Apr. 30th	To Balance	10,334	3	11	Nov. 13th	By amount subscribed by Sir Jamsetjee Jejeebhoy on account of this Fund, bearing Interest from 30th August last	10,000	0	0
	Rupees	10,334	3	11	1849.				
Nov. 1st 1850.	To Cash paid to C. Morehead, Esq., on account of this Fund	334	3	11	Apr. 30th	Amount of Interest from 30th August 1848 to this day, for 244 days, at 5 per cent.	334	3	11
Apr. 30th	Interest on ditto from 1st November 1849 to this day, for 181 days	8	4	7		Rupees	10,334	3	11
		342	8	6	May 1st	By Balance	10,334	3	11
	To Balance	10,508	6	9	1850.				
	Rupees	10,850	15	3	Apr. 30th	By Interest on ditto for 12 months	516	11	4
						Rupees	10,850	15	3
June 29th 1851.	To amount of Interest on Rupees 10,000 for 1849-50, paid by the Sub-Treasurer.	500	0	0					
Apr. 30th	Interest on ditto from 29th June 1850 to this day, for 306 days	20	15	4	May 1st	By Balance	10,508	6	9
		520	15	4	1851.				
	To Balance	10,512	14	3	Apr. 30th	By Interest on ditto for 12 months	525	6	10
	Rupees	11,033	13	7		Rupees	11,033	13	7

July 8th	To Cash paid by the Sub-Treasurer on account of Interest for 1850-51		340 15 7	May 1st	By Balance	10,512 14 3	
1852.				1852.			
Apr. 30th	To Interest on ditto from 8th July 1851 to this day, for 298 days		13 14 1	Apr. 30th	By Interest on ditto for 12 months	525 10 3	
			354 13 8				
	To Balance		10,683 10 10				
		Rupees	11,038 8 6			Rupees	11,038 8 6

Dr. *Sir Jamsetjee Jejeebhoy's Medical Prize Fund.* *Cr.*

		Rs.	a.	p.			Rs.	a.	p.
1849. Apr. 30th	To Balance	5,167	1	11	1848. Nov. 13th	By amount subscribed by Sir Jamsetjee Jejeebhoy on account of this Fund, on the 30th August last	5,000	0	0
1850.	Rupees	5,167	1	11	1849. Apr. 30th	By amount of Interest on ditto from 30th August 1848 to this day, for 244 days, at 5 per cent. per annum	167	1	11
Apr. 30th	To Balance	5,425	7	7		Rupees	5,167	1	11
	Rupees	5,425	7	7	May 1st	By Balance	5,167	1	11
June 26th 1851.	Amount of Interest on Rupees 5,000, paid by the Sub-Treasurer	250	0	0	1850. Apr. 30th	By Interest on ditto for 1849-50	258	5	8
Apr. 30th	Interest on ditto from 26th June 1850 to this day, being 309 days	10	9	4		Rupees	5,425	7	7
		260	9	4	May 1st	By Balance	5,425	7	7
„ „	To Balance	5,436	2	7	1851. Apr. 30th	By Interest on ditto for 1850-51	271	4	4
	Rupees	5,696	11	11		Rupees	5,696	11	11
Aug. 1st 1852.	Amount of Interest for 1850-51 paid by the Sub-Treasurer (on Rs. 5,000)	250	0	0	May 1st	By Balance	5,436	2	7
Apr. 30th	To Amount of Interest on ditto for 274 days, from 1st August last to this day	9	5	8	1852. Apr. 30th	By Interest on ditto for 1851-52	271	12	11
		259	5	8					
„ „	To Balance	5,448	9	10					
	Rupees	5,707	15	6		Rupees	5,707	15	6

Bombay, Accountant General's Office, 30th April 1852.

(Errors excepted)

(Signed) E. E. ELLIOT, Accountant General.

(True copy)

(Signed) M. STOVELL, Secretary.

APPENDIX No. XX.

LETTER FROM GOVERNMENT IN REPLY TO REPORT.

No. 2318 OF 1853.

GENERAL DEPARTMENT.

To the SECRETARY TO THE BOARD OF EDUCATION.

SIR,

I have submitted for the consideration of the Right Honorable the Governor in Council, the Report of the Board of Education for 1852-53, received with your letter, No. 379, dated 26th of May last.

2. In reply I am desired to observe, that Government participate in the regret which the Board express for the loss of their late distinguished President, and on the occasion of the retirement of their colleague Mahomed Ibrahim Mukba, Esq.

3. At the time of the departure of Sir Erskine Perry, His Lordship in Council did not fail, as the Board are aware, to place on record, and to express to Sir Erskine personally, the high sense which was entertained by Government of the value of his services as President of the Board of Education.

4. The death of the late excellent and amiable Mr. Patton has also been noticed by His Lordship with deep concern, as in him the Board have lost one of the most zealous and able of their servants.

5. Another event of the past year, which His Lordship in Council feels unwilling to pass over in silence, and which is reported by the Board, is the retirement of Mr. Green from their service, after a period of nearly ten years' uninterrupted and highly successful labours as Principal or Professor in their colleges or schools. It is at the same time gratifying to know, that the eminent abilities of this gentleman are not lost to the cause of education, to which he has so long and so earnestly devoted himself.

6. The replacement of inefficient and worn-out vernacular masters by better instructed and active men is an indispensable essential to progress. Government have not failed to press upon the attention of the Board that the success of the vernacular schools entirely depended on the adoption of an improved standard of qualification for those to whom the charge of these schools was to be entrusted. His Lordship in Council concurs in the sentiments of the Board on the subject of admitting teachers to the benefits of the Pension Rules, and I am desired to inform you that the concession will be warmly recommended to the Honorable Court.

7. The Governor in Council fully agrees with the Board that it is most desirable to raise the position of the vernacular masters in the estimation of their countrymen, and will be prepared to support all feasible and reasonable proposals which may be made on their behalf, and with the object of increasing and extending their social influence.

8. The proceedings of the Board in regard to Sattara seem to have been most judicious, and are entirely approved of by Government.

9. The Governor in Council hopes that the efforts made by the Board, in co-operation with the Political Authorities, to introduce a more general and efficient scheme of education into Katiawar, will succeed eventually; though, divided as that province is into numerous States, the Chiefs of which are unconnected with each other by any common tie, and in their interests are independent, it is hardly a matter for surprise that

they should be blind to the advantages which the establishment of a central and superior school would secure for their own dependents, in common with the inhabitants of the province generally, and should rather desire to give what they have to contribute towards the support of schools established within their own immediate territories and influence.

10. The Honorable Court's attention will be drawn to the favorable notice of the periodical entitled the "Dnyanprasarak," in the 96th paragraph of the present report.

11. Government entirely approve of the retrenchments of expenditure which the Board have reported. They seem to have been either necessary or desirable, without reference to the necessity under which the Board are placed of reducing their expenditure within the limits of their income. The several applications of the Board for an extension of the annual grant having already been submitted with the warm support of Government for the consideration of the Honorable Court, I am desired to observe that the Court's reply must be awaited.

12. It may, however, be remarked, that there would seem to be two rules, by adhering to which the resources placed at the disposal of the Board by Government would probably be more effectually husbanded.

13. The first is by giving a steady and systematic encouragement to the extension of self-supporting schools, or of schools in part supported by voluntary contributions, as those of Sattara, mentioned in paragraph 14 of the report.

14. The second is, by confining their operations to localities where good schools under efficient superintendence have not been already established, whether by Missionaries or others. But this rule can only be of partial application. It is not, for example, intended to apply to capital cities and towns.

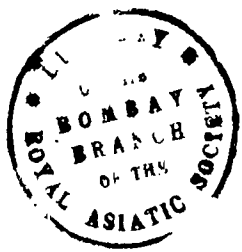
15. The Governor in Council considers it unnecessary to further notice the present report in detail. The history of the educational institutions throughout the Presidency, during the year under review, is a subject for sincere congratulation, and is, as heretofore, extremely creditable to those zealous and able

officers of the Board who have been chiefly instrumental in realizing such favorable results. With reference to the concluding paragraph of the report, I am directed to inform the Board that His Lordship in Council has every reason to be satisfied that their superintendence has been both careful and judicious.

16. In conclusion, I am directed to state that Government authorize the publication of the report.

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) J. G. LUMSDEN,
Secretary to Government.

Bombay Castle, 18*th July* 1853.



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